ORISSA:

BY

W. W. HUNTER.

VOLUME II.

LONDON:
SMITH, ELDER & CO., 15, WATERLOO PLACE.
1872.

CONTENTS.

CHAP.		PAGE
VI.	Orissa under Foreign Governors, Mughul and Marhattá.	1–35
VII.	The English as Settlers and Governors in Orissa	36–173
VIII.	The Calamities of Orissa, Floods and Famines	174–199
IX.	Village System and Growth of Private Rights in the Soil	200–278
	APPENDICES I. to IX. .	1–210
	INDEX.	211–219

ORISSA:

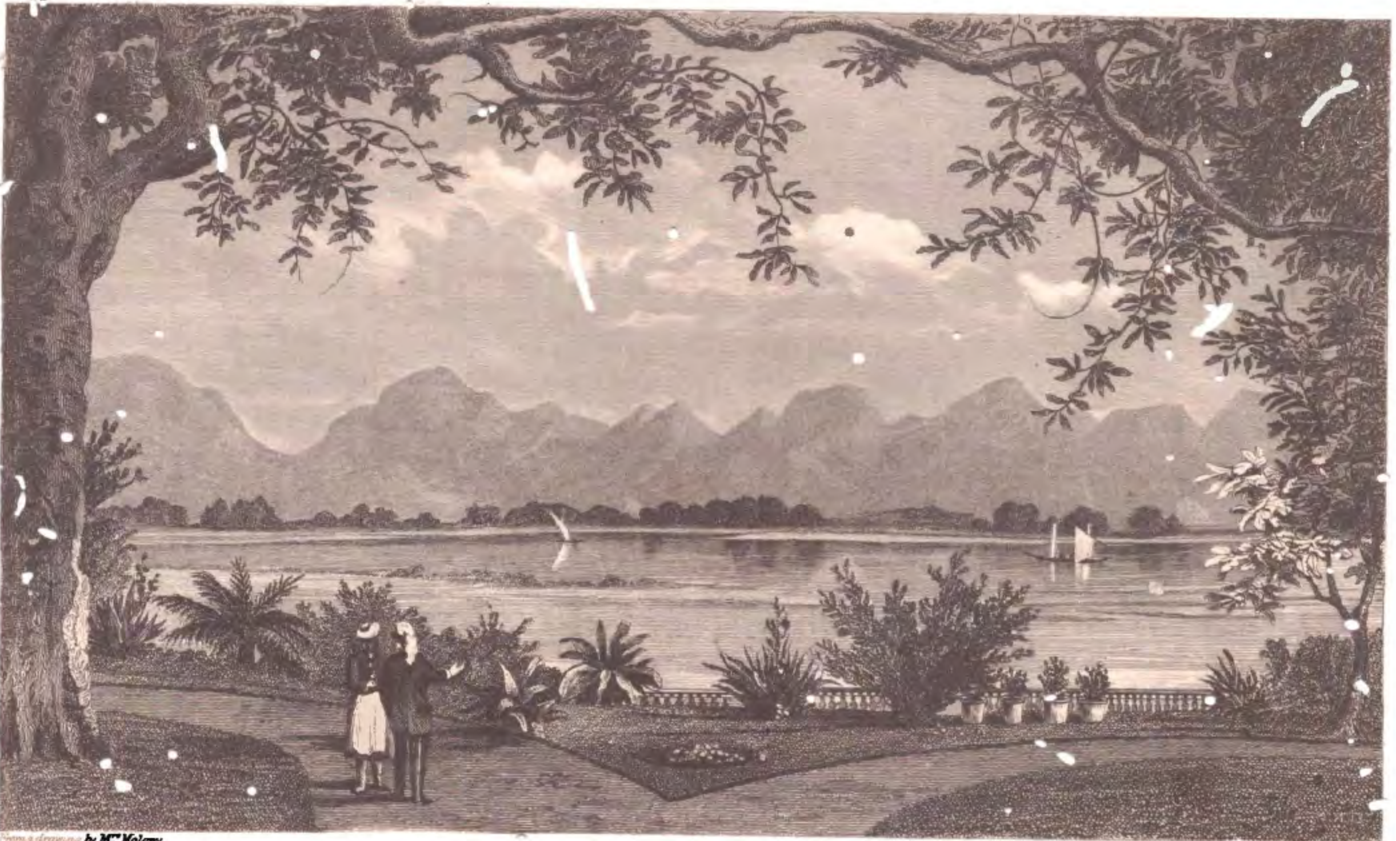
OR THE VICISSITUDES OF AN INDIAN PROVINCE UNDER NATIVE AND BRITISH RULE;

IN TWO VOLUMES.

BEING THE SECOND AND THIRD VOLUMES OF

THE ANNALS OF RURAL BENGAL.

MURRAY AND GIBB, EDINBURGH,
PRINTERS TO HER MAJESTY'S STATIONERY OFFICE.



From a drawing by Mrs. Molony. C.W. Coard Sc.



CHAPTER VI.

ORISSA UNDER FOREIGN GOVERNORS.

WE have hitherto viewed Orissa under its Native Rulers. I now proceed to trace the events which brought it into conflict with foreign powers, and to set forth the good and the evil which befell the Province from contact with the outside world. The scarcity of materials that has sometimes rendered the narrative so neutral-tinted, can no longer be complained of. The literary instinct which among the Hindus spent itself on religious poetry and the drama, found among the Musalmáns a clear full outlet in history. The Semitic race, and the conquering creed which it founded, have spread the Arabian passion for Annals from the white cities of the Guadalquivir to the rice-swamps of the Irawadi. In India, as soon as a Province comes into permanent contact with the Muhammadans, its history emerges from the wonder-land of Temple Archives and Sacred Song; and becomes only a question of patient industry, in searching out the fragmentary allusions to it in the Musalmán manuscripts.[1]

[1] I have to thank Captain Osborn of the Bengal Cavalry for going through the *Muntakhab-ul-Tawárikh* and *Khafi Khán* for me. To Professor Blochmann my obligations are still greater; and it is not too much to say that his *Aín-i-Akbarí*, now in process of publication, creates a new basis for Indian history. Besides a variety of local materials, which I shall refer

But unhappily these new materials do not form straight paths converging to a common conclusion, but a labyrinth of cross-roads intersecting each other at the most perplexing angles; and which, after wiling on the traveller in the hope of new discoveries, often stop short in the midst of some trackless jungle. Whenever two sources of materials exist, Indian history finds itself reduced to an unsatisfactory reconciliation of conflicting evidence. No sooner does it dare to be critical than it becomes inconclusive, and passes beyond the open and sunny domain of the annalist into the dim regions of antiquarian research. But so long as the past of a country involves at every step an intricate disquisition, the free pace and far-reaching glance of history are alike dangerous and impossible. It is only when the antiquarian has finished his part of the work that the historian can safely begin; and the rash artist who goes sketching in an unmapped country, runs an excellent chance of closing his career in a bewildering forest or quagmire. If I have escaped this peril, the credit is due to those kind scholars who, with greater opportunity for such labours than myself, have guided me across leagues of unexplored ground; and to the patient devotion of the men who in time past have given their lives to Indian research;—names little known to the English reader, but dear to the student in all countries, and for

to as the Blochmann MSS., he has favoured me with a complete list of all notices of Orissa in the *Akbar-Námah*, particularly the *Aín-i-Akbarí*, the *Makhzan-i-Afghání*, the *Badáoní*, and *Tuzuk-i-Jahángírí*. I have also found the Muhammadan Historians, now in publication from Sir Henry Elliot's papers, very useful. In addition to the Jagannáth Palm Leaf Records as digested in the Bengali work, Purúshottama Chandriká, and by Stirling, As. Res. vol. xv., I have used the noble collection of the Mackenzie manuscripts in the Asiatic Society's Library in Calcutta, and a digest of the corresponding papers in Madras.

ever to be honoured by the rulers of our Eastern Empire.

But while thus labouring to hew a way through the labyrinth of Orissa history under its foreign Governors, I have felt that it would not be fair to hide the conflict of opinion which exists. Endless antiquarian discussions are intolerable in a historical work, but such a work would be even more disfigured by dishonest concealment. The text will therefore set forth the conclusions at which, after considering the whole evidence, I have arrived; but the process of reaching them, and all technical details, I venture to relegate to footnotes.

At the beginning of the thirteenth century, Orissa first became conscious of that new Power in the north, which was so soon to burst down in uncontrollable waves upon the continent of India. In 1203 A.D., a valiant Afghán[2] led his tribe under the Imperial banner into Bengal. The last Hindu king feebly yielded to the mountaineers of Central Asia, abandoned his capital and fled to the shrine of Jagannáth, where he closed his days as an ascetic. The conqueror, although able to carry his arms to the northern frontier of Bengal till turned back by the mighty ranges which wall out India from Thibet,[3] did not venture to follow the fugitive into the dangerous Orissa delta. But nine years later (1212 A.D.) his third successor,[4] a bold soldier of fortune from Persia, swept down upon the Province, 'which had never

[2] Muhammad Bakhtiar Khiljí.

[3] Major Charles Stewart, principally following the Tabkat Nasiri. History of Bengal, pp. 27–29; a work which marked a vast stride in Oriental learning at the time when it was written (1813), and which it would be well worth the while of Government to have now revised by a competent scholar.

[4] Hisam-ud-dín Douz Ghyás-ud-dín; Stewart, p. 35. I invariably quote the Calcutta edition of 1847, which with all its inaccuracies is now the only one in print.

before been subdued by the Muhammadan arms,' and forced it to pay tribute. This raid, for it could not be called a conquest, yielded no permanent results; and in 1243 the ruler of Bengal, now a fierce Tartar,[5] marched upon Orissa. Again the persistent valour of the Uriyás turned back the tide of invasion, and drove the Muhammadans before them into the heart of Bengal. The Orissa Prince divided his army into two columns. One of them occupied the eastern or river route northwards through Bengal, keeping along the Ganges, and besieged the Musalmán Governor in his capital.[6] The other advanced by the great military road along the western frontier of the Lower Provinces, and sacked the chief town of Bírbhúm.[7] The Emperor on his throne at Delhi heard with indignation of the hitherto invincible armies of Islam having been driven back four hundred miles by the peasant militia of Orissa. He hurried down reinforcements before which the Uriyás retired, laden with plunder to their own country; and the vanity of Musalmán historians has covered the national disgrace, by converting this Hindu raid into a Tartar invasion under the generals of Chingis Khán.

Ten years later, the Tartar Slave-Governor of Bengal tried to revenge this defeat by another invasion of Orissa. But the feudal organization of the Province, which I shall hereafter describe, again prevailed. In the end the Musalmán army fled completely broken, and with the loss of all its elephants. The truth is, that the delta of the Mahánadí lay too far from the base of the Musalmán operations in Bengal, to allow of any permanent conquest by the Muhammadans in that age.

[5] Azá-ud-dín Toghán Khán. [6] Gaur; Stewart, 39.
[7] Nagar. See Annals of Rural Bengal, vol. i. p. 81, 4th ed.

After traversing the network of rivers which water the lower valley of the Ganges, they found, when they reached Orissa, military operations on a large scale impracticable among the still more complicated network of rivers in that Province. Three centuries of raids, and hollow treaties, and mutual wrongs, elapsed (1200–1500 A.D.) before anything like a subjugation of Orissa by the Musalmáns took place. Long after the Afgháns had trodden the conspicuous Hindu dynasties of India into the dust, Orissa asserted its independence, and remained the stronghold of the ancient national faith. It was not, as we shall presently see, till its princes had proved false to their trust, and leagued themselves with the Musalmáns against the patriot cause, that they fell. Even then, the conquest of Orissa was reserved as one of the supreme triumphs of Akbar in 1568, at a time when the Imperial power had reached its culminating point.

During the fourteenth century the political relations of Orissa seem to have been entirely with the southward. The narrow strip stretching down the Madras coast to the Godávarí River gave its nominal ruler, the Orissa king, endless trouble. In 1309 the Prince had to seek the aid of the Musalmáns against his rebellious southern subjects,[8] and the Persian historians dilate with national pride upon the wars which followed; wars which ended in their seizing the disputed country for themselves.[9] After twenty-three years of fighting, the capital of the

[8] Elphinstone, 396, ed. 1866.

[9] The conquest of Telingá is narrated by Abdullah Wasaf, by Amír Khusru, and by Ziá-ud-dín Barní. Sir Henry Elliot's Muhammadan Historians, vol. iii. pp. 49, 78–85, 204, 231–234, and 558–561. Amír Khusru distinctly states that the Muhammadan force consisted partly of Hindus. The subject occupies many hundred pages of the Mackenzie MSS., which will be quoted in detail in subsequent notes.

insurgent southern strip fell before the allies,[10] who seem to have given it up on this occasion to its lawful monarch, the Orissa king. During the next hundred years we hear nothing of the connection of the Muhammadans with Orissa. In the middle of the fourteenth century it is spoken of as still unexplored by them.[11]

But the time had now arrived when such intercourse was to be drawn so tight as to strangle the ancient Hindu Province. We catch a glimpse at a roving Musalmán force levying black mail from Orissa in 1451.[12] Six years later, the Orissa king joined with the Hindu Princes of the southern strip to attack the Muhammadans, who had by that time effected a permanent settlement in what is now the Madras Presidency. But the feudal organization of Orissa was better fitted for the defence of its own territory than for the invasion of other countries, and the Hindu chieftains were glad to purchase a retreat by a sum which would now be equal to £400,000.[13] In 1471 the Orissa Prince appears as the ally of the Muhammadans. He invited them into his dominions to put down a domestic usurper, and gave them two forts in return for their aid.[14] Afterwards repenting of the bargain, he formed a great coali-

[10] A.D. 1332. Elphinstone, 242. Four years later (1336), Vizianagaram, the northern capital of the said southern strip, was founded. Mackenzie MSS. vol. v. (unpaged), vol. vi. pp. 73-110. Asiatic Society's Library, Calcutta.

[11] Under the Emperor Muhammad Tughlak, 1325–1351 A.D. Elphinstone's Hist. India, 476, and 402–408, ed. 1866.

[12] Stirling, As. Res. xv. 275.

[13] Five lakhs of tankás or rupees. As explained at the end of the last chapter, the value of silver was eight times greater under the Gangetic Line than it is now.

[14] Rájmahendri and Kandapalli. Firishta, cited As. Res. xv. 277, 278. See the different and fuller account from Colonel Briggs' Firishta, transcribed by Elphinstone, App. p. 756. It is scarcely worth while inquiring whether the Prince whom the Muhammadans assisted was the legitimate

tion with the Hindu Princes of the south, and brought down upon his unfortunate country the vengeful forces of Islam twenty thousand strong. The latter, however, although they could extort tribute, found the subjugation of Orissa as impossible as ever; and the fifteenth century seems to have ended with a new alliance between the Musalmáns and the Orissa king against the rebellious southern strip.[15]

The commencement of the sixteenth century discloses the allies fighting rather unsuccessfully against the great Hindu monarch of the south, who at that time founded a power which threatened to sweep the Muhammadans into the sea. The heroism and policy of Krishna Ráya[16] still live in the songs of Southern India. The popular legends love to relate how he carried his victorious arms from Ceylon to the mountains of Thibet,[17] and sober history recognises in him the last breakwater which Hindu valour opposed to Musalmán conquest. In this great national struggle the Orissa monarch fought on the unpatriotic side. But his perfidy failed to yield safety. The southern monarch crushed the unholy alliance, and the Orissa king found himself compelled to give up his daughter in marriage to the last of the Hindu heroes.[18]

king or the usurper. The Temple Archives make no mention of these irreligious alliances, or of the retributive defeats in which they ended.

[15] A.D. 1488–1509. Mackenzie MSS. fol. xv. pp. 325–329. These documents show that the Muhammadans interfered with the succession of the Hindu Princes, placing their own nominee on the throne, and in the end the Uriyás appear rather in the light of forced than of voluntary allies. The Uriyá Palm Leaves, as usual, magnify their own princes; but a comparison of the Telugu MSS. with the Muhammadan Historians leaves no doubt as to the substantial truth of the account which I have given in the text.

[16] Reigned 1509–1524 A.D. Mackenzie MSS. fol. vi. pp. 73–110.

[17] Mackenzie MSS. fol. iv. (unpaged, but near the beginning).

[18] For notices of Krishna Ráya, see Taylor's Examination of the Madras Mackenzie MSS. pp. 27, 38, 70, 75, 78, 83, and 143. Also the folio volumes

In 1524 died this sole prop of the Hindu Dynasties of Southern India, and the next half-century marks their final extinction by the Muhammadans. The Telugu Palm Leaf manuscripts depict the throes and agonies amid which the ancient kingdoms gave birth to the new Musalmán Empire of the South. They state that between 972 and 1563 A.D. three great powers successively arose.[19] During this period the Lords of Elephants[20] ruled in Orissa and the north of Madras; the Lords of Men[21] held the country to the southward, and produced the hero-king described in the last paragraph; the Lords of Horses[22] were the Musalmáns, who with their all-devouring Pathán cavalry overthrew the two former. In spite of the Orissa legends alluded to at the end of the last volume, and which magnify their own monarchs, there can be little doubt that the Lords of Elephants had sunk to the lowest place in this dynastic trio at the beginning of the sixteenth century. The southern line, the Lords of Men, at that very time reached their climax of power. We may pass over with a smile the legendary expeditions of their hero-monarch from Ceylon to Thibet; but the Portuguese historians[23]

of the Bengal Mackenzie MSS. in the Asiatic Society's Library, Calcutta, vol. iv. (which begins with an account of the great Krishna Ráya of Vizianagaram), v. (unpaged), vi. 63–65, 73–110, x., xii., and xv. The Jagannáth Palm Leaf Archives give quite a different account. See last chapter.

[19] *i.e.* from 895 *sak*, continuing during 591 years.

[20] Gajapatis, the Dynasties described in the last chapter.

[21] Narapatis, from 1336 to 1564 A.D. Their northern and later capital was at Vizianagaram; their southern one at Adaigundi or Anaigundi.

[22] Aswapatis.

[23] They mention his (Krishna Ráya's) siege ofRáchol, near Bombay, with an army of 35,000 horse and 733,000 foot. A Muhammadan force which advanced to relieve the city was defeated, and had to accept as the degrading terms of peace the acknowledgment of Krishna Ráya as the Lord Paramount of Kanárá, and the kissing of his feet. The execution of these conditions, although agreed upon, was accidentally deferred. Mackenzie MSS. fol. vi. pp. 73–110.

attest his greatness, and all India from the Narbadá River southwards acknowledged his sway. His vast dominions began to disintegrate upon his death in 1524; and in 1564 the capital of his Dynasty (the Lords of Men) finally fell before the Musalmán cavalry—the Lords of Horses.

Four years later, in 1568, the Orissa Lords of Elephants also succumbed beneath the Muhammadan arms. The beginning of the century had brought with it a Musalmán raid more serious than any which we have hitherto had to describe. While the Orissa Princes were making treaties with the armies of Islam in Southern India, against their own subjects and the great Hindu coalition under Krishna Ráya—treaties which each side kept or broke according to its own convenience—the Musalmán Governor of Bengal dashed down upon the Province from the north; sacked the capital, Cattack; and plundered the holy city, Purí, itself. The Orissa Prince hurried northwards, and the feudal organization of his kingdom again beat back the raiders from the north.[24] Even the flattering historians of the pious and statesmanlike descendant of the Prophet who then gave lustre to the throne of Bengal, merely mention that the 'Tributary princes as far as Orissa obeyed his com-

[24] No date has hitherto been given for this invasion. We know, however, from the Uriyá Records that it took place under Pratáb Rudra Deo, 1504–1532 A.D. according to the Purúshottama Chandriká, or 1503–1524 according to Mr. Stirling's pandits. We also know from Stewart (Hist. Beng. 73), as elucidated by Mr. Blochmann's recent researches in Huglí District, that it took place under Sultán Husain Sháh, 1497–1521 A.D. (Proceedings, Asiatic Society of Bengal, April 1870). This Husain Sháh is the Alá-ud-dín Husain Sháh of Stewart, and appears erroneously in Elphinstone (p. 770), probably following the Tabakát-i-Akbarí, as Alá-ud-dín II. His identity has been established by the author of the Riyáz, and an Arabic Inscription near Sáran. The Orissa invasion took place, therefore, between 1503 and 1521, and the Blochmann MSS. incline to the year 1510.

mands.' His Orissa raid was the work of his most celebrated warrior, whose exploits against the infidel won for him the titles of the Treasure of the Army and the Fighter for the Faith.[25] The general, on his way back, built a great fort to the north-west of Calcutta, in the District which was then considered the frontier of Orissa.[26] His sovereign, jealous of his fame, took offence at his thus establishing a stronghold on the border of a hostile country, accepted it as a declaration of revolt, wiled him to the royal Court, and beheaded him. A local tradition still relates how his mutilated trunk mounted a horse and rode back to his beloved fortress, while the head followed its course hovering in the air. On reaching the stronghold, it begged for a little of the narcotic leaf[27] which the natives of India chew with, or instead of, tobacco. This, however, they refused, saying that his mouth was high in the air and could not eat. 'Then it is not Allah's will,' exclaimed the lips, 'that my head should again join my body. Go therefore, my head, go back and be buried at the King's city.' Thereupon the head flew back in the air the same road as it had come, and they laid it in a grave which may be seen to this day. Such was the fate of the first invader of Orissa in the sixteenth century, and such the story of the Headless Rider who had led it.[28]

Of the second and final invasion we have four separate accounts.[29] Their discrepancies may be found

[25] Ismá'il Ghází. Blochmann MSS.

[26] At Madáran, in the south-west of Bardwán District.

[27] Pán.

[28] Blochmann MSS.

[29] (1) Stirling's account in vol. xv. of the Asiatic Researches. (2) Purúshottama Chandriká, by Bhabáni Charan Bandopádhyáya. (3) Stirling's Posthumous Paper in vol. vi. Jour. As. Soc. Bengal, 1837. (4) Abul Fazl's, taken from the Akbar-námah. The first three are based upon the Palm Leaf Archives of Jagannáth; the fourth is a contemporary record

below; but the three most trustworthy of them, while differing as to the exact date, agree in assigning the conquest of Orissa to the victorious Afghán who ruled Bengal from 1564 to 1573. This Prince formed the fifth of the Afghán Dynasty, and, like almost all the other chieftains of the time, derived his lineage from the highland clans beyond the north-west frontier of India. By a judicious mixture of valour, fidelity, and treason, he reached in 1564 the throne of Bengal. During the next two years he sustained an uncertain war with his late master the Emperor Akbar. The latter, indignant at his defection, advanced upon him from the north, and at the

by the keenest observer and most accurate chronicler whom the Muhammadan Empire produced. According to the Palm Leaf Archives, the subjugation of Orissa was effected by Kálá Pahár at a date varying from 1487 to 1558. According to the contemporary work by Abul Fazl, it took place in 1567–68. The historical probabilities are *prima facie* in favour of Abul Fazl's account. But I notice a statement by Stirling, based upon the Uriyá documents, which places the inaccuracy of their date beyond question. He mentions (As. Res. xv. 288) that the conquest took place after the Orissa Prince had made preparations to defend the Province against Sultán Sulaimán. Now Sultán Sulaimán reached Bengal only in 1564, and up to 1566 his whole attention was engrossed by military difficulties in the north of the Province. As soon as these were settled, he advanced towards the south and invaded Orissa. This brings us to the year 1567–68, the very date given by Abul Fazl. Stirling, in the list of kings printed in 1837 from Uriyá materials, places Kálá Pahár's invasion between 1487 and 1509—clearly erroneous. Were it not for the habitually untrustworthy character of this list, it might be worth mentioning that it states that the king who ascended in 1569 was put to death by the Mughuls, or just a year after the real date of the Musalmán conquest. In the list published in 1825 (As. Res. xv.), and which gives 1558 as the year of the conquest, Stirling's authorities seem to have deserted him for a third of a century preceding that date. Between 1533 and 1558 his work affords only one date, and he omits the names of four monarchs. My own list, compiled from the Purúshottama Chandriká, gives the names of seven kings from 1532 to 1559, and leaves the reader at liberty to place the conquest of Orissa at any time between 1559 and 1578. It dismisses this period as 'arájak,' or anarchical, but the inference is that the Muhammadan conquest took place at the beginning of it. Independently of the evidence in favour of Abul Fazl, therefore, none of the three records compiled from the Uriyá materials have adequate intrinsic claims on our belief.

same time stirred up the Orissa Prince[30] on the southern frontier of the rebel's new dominions. This was not the first time that a rival of the new Bengal King had sought the alliance of an Orissa Prince. A few years before (1551–1559), the unfortunate Sultán Ibráhim, flying before Sulaimán, had found a shelter at the Orissa Court, and received an estate from the royal demesne. When Akbar's envoy arrived, the refugee naturally tried to stir up the Orissa Prince to fight on the Imperial side against his own former enemy, who had seized the throne of Bengal. The embassy was splendidly entertained for three months in the holy city of Purí; a minister of the hospitable Orissa King accompanied it back, and was presented with great ceremony at the Imperial Court in Northern India.[31]

For these transient honours the unhappy Province was destined to pay dear. Within the next two years, the Emperor adjusted his dispute with his rebel subject, and deserted his Orissa allies. Sulaimán, on his part, gave up some territory[32] on the north to his master; Akbar, on his side, found himself involved in other troubles in the far west. The Afghán chief thus reigned supreme in the kingdom which he had usurped, and willingly had the Friday Prayers read in the Emperor's name as the cheap price of undisputed possession of Bengal.

[30] Akbar's ambassador to Mukund Deo of Orissa was the Imperial Treasurer Hasan Khán, who requested the Uriyá Prince to invade South-western Bengal in case Sulaimán united his forces with those of another rebel, Khán Zamán, against the Empire. A Mahápátra, by birth an Uriyá, who had raised himself to the rank of chief-singer at the Imperial Court, accompanied the embassy as interpreter. Blochmann MSS.; Akbar-námah.

[31] At Nagarchin, near Agra, in A.H. 973, or A.D. 1565. Blochmann MSS.

[32] Zamáníá, near Gházípur, delivered over to Munim Khán Khánán, the Imperial Governor of Jaunpur.

Next year, 1567, the new King of Bengal turned his arms against the ally of his former master. He advanced with a great army of Afgháns into Orissa, and defeated its last independent Prince under the walls of his capital.[33] Not content, like the previous invaders, with levying a ransom from the Province, he marched through it to the southern extremity, and laid siege to Purí, the holy city, itself. The old feudal organization of Orissa, which three centuries before turned back the wave of Musalmán conquest, now broke down under the strain of a two years' military occupation. The peasant militia scattered before the veteran Afgháns, and religious terror unnerved the whole population of Orissa. The Musalmán northmen marched furiously from temple to temple, throwing down the most august shrines, smashing in pieces the most potent gods; strewing their route with visible proofs of the powerlessness of the native divinities, and of the invincible supremacy of Islam. A proverb still survives, that on the sound of the Musalmán kettle-drums the noses of the gods dropped off. The refugee Emperor,[34] who had found an asylum from the wrath of the Bengal King at the Orissa Court, shared the ruin of his protector, and fell beneath the dagger of his victorious rival.[35]

Next year, 1568–69, the Bengal King left Orissa, and we hear of him immediately after as fighting and plundering in a District seven hundred miles to the north.[36] The feudal organization of Orissa gathered

[33] Jájpur.

[34] The Sultán Ibráhim.

[35] Here, and generally in my narrative of the Musalmán transactions in Orissa, I follow the Muhammadan writers rather than the Uriyá ones. I have already devoted so long a footnote to their principal discrepancy (the date of the conquest), that it seems unnecessary to pause over each separate difference between them.

[36] Kuch Behar.

together its fragments, and no sooner was the Province relieved from the weight of a master's hand than it revolted against his Deputy. The Bengal King rushed southwards again with his Afghán veterans; but although he restored his supremacy, he contented himself till the end of his reign, 1573, with a mild and distant sway.

His successor, Dáúd Khán, threw off all allegiance to the Emperor at Delhi, and declared Bengal an independent kingdom. The following year, 1574, accordingly brought down upon that Province the whole warlike weight of the Empire. Bengal thus became the theatre of the final struggle between two great races, the Afgháns and the Mughuls, both of which traced their origin to the steppes of Central Asia. The Afgháns had first conquered India, but in their turn they had been pushed down by the Mughuls, who now occupied the Imperial throne. The contest ended, as all such contests in India have hitherto ended, in the victory of the race who had last arrived from the north. The Afghán King of Bengal, reduced to a suppliant in the camp of the enemy, gladly exchanged the throne of Bengal for the Province of Orissa as a fief from the Mughul Emperor. The death of the Imperial general, however, gave the signal for his revolt, and from this time forward the Afgháns used Orissa as their military base against the Emperor Akbar and his Mughul array. Themselves the former conquerors and rulers of India, they had gradually advanced or been pushed down the valley of the Ganges, till they now stood at bay in its southernmost Province, with their backs to the sea. Orissa had from time immemorial been the refuge of unfortunate dynasties. We have seen how the last Hindu King of Bengal found in it an asylum from the victorious

Afghâns in 1203. Three hundred years afterwards, a driven-out Emperor of Delhi[37] had found in it refuge from the Bengal King. Time had now brought round a double revenge: a Muhammadan King of Bengal sought in it a shelter from the Delhi Emperor, and the Afghâns accepted it as the last retreat of their race.

From amid its network of rivers the Afghâns issued forth in incessant raids upon the now Mughul Province of Bengal,—raids which from time to time rose to the dignity of invasions. I give a list of the principal hostilities, in Appendix VIII. After three years of incessant fighting, the Afghân King of Orissa was slain, 1576, and the Imperial troops occupied the country. Two years later, Orissa became a Province of Akbar's Empire.

The Mughuls owed the annexation of Orissa to a Hindu general, Todar Mall. This valiant soldier, whose history exhibits the support which the Musalmân Emperors derived from Hindu valour, and suggests the loss which the Anglo-Indian Army sustains from not availing itself of native officers of rank, was born in the capital of the Panjâb.[38] He entered the Emperor Akbar's service at an early age, and after winning military distinction, was entrusted with the consolidation of the Imperial power in a conquered Province.[39] He stands forth as the leading spirit in the subsequent struggle between the Afghâns and the Mughuls for Bengal. In the great battle[40] which decided the fate of this contest, when one of the Mughul generals had fallen,[41]

[37] Sultân Ibrâhim, already alluded to. He just reached the Imperial throne to immediately vacate it.

[38] Lâhor.

[39] Gujrât.

[40] Takaroi, or Mughulmâri. Identified in App. VIII.

[41] Khân Alam.

and the other's horse had run away with him,[42] the Hindu soldier held together the panic-stricken troops, shouting, 'What harm if the one Mughul is dead, and the other has run away? the Empire is still ours!' After several years more of eminent service in the field and as a Revenue Administrator, the Hindu was appointed Prime Minister in the teeth of a bigoted Musalmán Court. The troubles in Orissa brought him again to the front, and in the end he led a victorious force to Cattack, the present capital of the Province. No sooner had he defeated the Afghán King, than he shines forth as an enlightened Civil Administrator. The Afghán chiefs fell back from the Delta upon the mountainous western frontier which now forms the Tributary States, leaving the Hindu Minister of Akbar to introduce order, and a firm, peaceful rule. He executed a survey of the Province (1582), and substituted for the innumerable local measures a standard rod of twelve spans,[43] which survives to this day. Vigilant wherever his master's interest was concerned, he respected the feelings of the conquered Hindus; placed a native prince, the first of the present family, on the throne; and by exempting the District sacred to Jagannáth from assessment, won the hearts of the people to the Imperial cause.[44]

But the conquest had cost the Empire dear. Besides the losses in battle, the fevers of the tropical delta made havoc among the northern troops. Even after the struggle was over, and the Mughul forces had retired to Bengal, I find a list of fourteen generals and great Officers of State who died of malaria in the year of their

[42] Munim Khán.

[43] The Bára-dasti-padiká.

[44] His assessment extended over only the three northern divisions or sarkárs of the then Province of Orissa, viz. Jaleswar, Bhadrakh, and Cattack. Purí remained to the Rájá of Khurdhá and the priests of Jagannáth.

return.[45] There is so little in the Musalmán character of the present day to remind us of their former greatness, that we are apt to overlook the fact that they won India by exploits not less brilliant, and by self-sacrifices not less noble, than its conquest in the seventeenth century elicited from the British troops. No sooner had Akbar's politic Hindu general left Orissa, than the Afghán remnant sallied forth from their hill retreats, and the Province again blazed up against the Mughul Empire (1583). Six years of confused fighting followed; and it was not until Akbar hurled another Hindu general against the rebellious Delta, that some sort of settled Government could be restored.

Rájá Mán Sinh, the new conqueror of Orissa, came of a noble Hindu stock in Rájputaná, and his talents for war soon attracted the favour of an Emperor who strengthened his throne by selecting his servants for their ability, independent of their religion or race. In the high rank of Governor of the difficult Province of Cabul, his policy rendered him conspicuous in an age of eminent statesmen and soldiers. In 1588–9 he was promoted to the Governorship of the newly subjugated Province of Bengal, and immediately found an Orissa revolt upon his hands.[46] The rainy season cut short his first invasion of the latter Province; but he forced the Orissa rebels to acknowledge the supremacy of the Emperor, and to stamp their coin with his name. The Afgháns, indeed, obtained peace only by a concession which, although they as Musalmáns cared nothing about

[45] At Gaur in A.H. 983, or 1575 A.D. Did the returned army bring with it the pestilence which in that year desolated Gaur; or was the pestilence an endemic to which the army, wearied out with its Orissa campaign, fell a prey?

[46] Blochmann MSS.; Akbar-námah.

it, must have been a noble gift in the eyes of the Hindu general. They made over to him the Temple of Jagannáth and all the adjacent country, in fact the whole District of Purí, and for two years the distracted Province obtained rest.

In 1591, the restless Orissa Afgháns again provoked the wrath of the Governor of Bengal. The Hindu, with national caution, first obtained the sanction of the Mughul Emperor at Delhi, and then organized an invasion on such a scale as to utterly root out this last stronghold of Afghán revolt. He calmly advanced to the Subanrekhá River, and waited till the characteristic impatience of the Afgháns placed them at his mercy. In an evil hour they crossed the stream, depending chiefly upon their elephants, and rushed with fiery impetuosity on the wary Hindu's squadrons. In a moment their fate was decided. The Imperial artillery sent the elephants flying back in fury and dismay on the Afghán line; and although the latter, with a courage and endurance worthy of the ancient conquerors of India, stood their ground for a whole day, they remained to die, not to fight. The Hindu general improved his victory with the same calm wisdom with which he had won it. He slowly advanced to Cattack, inflexibly garrisoning all strong positions on the route, and did not leave the Province till he had restored it to the rent-roll of the Empire (1592).

He owed his success as much to his policy as to his valour. He found two great parties in Orissa: the Afghán Musalmáns, to whom it had been granted as an Imperial fief in 1575, and who had used it ever since as the base of their rebel operations; and the Hindu population of Orissa, headed by the native Prince whom

Rájá Todar Mall had confirmed in 1582. These two powers the new general skilfully balanced against each other, strengthening the Hindu party, from whom the Empire had nothing to fear, and breaking up the Afghán colony by offering them a settlement in the heart of Bengal.[47] Their retirement left the ground clear for the aggrandizement of the local Hindu Dynasty. The ancestor of the present Rájá received a principality of 71 forts and 1342 square miles,[48] besides the suzerainty of 129 other forts and the territory which they commanded. Henceforth he paid his revenue, not to the Afgháns, but direct to the Imperial officers, and obtained the august hereditary title of Mahárájá, with the Court rank of Commander of Three Thousand Five Hundred Horse. His private income amounted to £61,561, a sum which made him as rich a prince then as a third of a million sterling would now. The other members of his family received

[47] At Khalifatábád, in Jessor. Stewart (Hist. Beng. p. 118) erroneously calls the settlement Khalifábád. Khalifatábád was a Sarkár or Division of the Mughul Empire which corresponds with our modern Jessor, and the descendants of the Afgháns still survive there. The principal parganás or Fiscal Divisions in which they settled were the eight following :—(1) Bágmárí; (2) Jessor; (3) Chirolih; (4) Datiah; (5) Salimábád; (6) Shabosh; (7) Mungatch; (8) Havelí Khalifatábád. Blochmann MSS.

[48] Rájá Rám Chandra Deo. Besides the Rájá's own principality of Khurdhá, containing seventy-one forts, he was made suzerain, under Akbar, of the estates of thirty other feudal lords, containing one hundred and twenty-nine *kilas* or castles. This territory comprised the modern District of Ganjám, the Tributary States of Angul, Athgarh, Bánki, Barambá, Daspallá, Dhenkánal, Khandpara, Narsinhpur, Nayágarh, Ranpur, Tálcher, and Tigariá, the estate of Dompárá in Cattack, and the Fiscal Divisions of Andhári, Bajrakot, etc., of the Purí District. From the British Surveys I find the total area must have been 13,935 sq. miles. His own principality amounted to 1342 sq. miles. Between 1627 and 1658 it yielded a revenue of £61,561. To the sons of Mukund Deo, the last independent king, Mán Sinh gave the forts of Al and Sárangarh and their dependencies, with the hereditary title of Rájá, and the official rank of Commanders of Five Hundred Horse. The area of the Sárangarh estate was 74 sq. miles, and between 1727 and 1758 it yielded a revenue of £3698. The area of the Al estate was 131 sq. miles, and between the same years it yielded a revenue of £2612.

the charge of fortresses or hill passes, with separate revenues in proportion to their rank; and the Imperial general, as the private possessor of the holy city Purí, knit together the interests of the native population with those of the Mughul Empire.

These wise concessions created a wide and permanent gulf between the Hindu Militia of Orissa under their feudal chiefs, and the remnant of Afgháns which yet remained to afflict the Province. Rájá Mán Sinh, like his predecessor Rájá Todar Mall, served his Imperial master faithfully, and in the very act of serving him shines forth in history as a consistent and patriotic Hindu. The Emperor Akbar well knew how to reward such fidelity. In spite of Muhammadan protests, he raised him to the Command of Seven Thousand Horse, a higher dignity than any subject except a Prince of the Blood Royal had yet attained, and far above the head of any Musalmán officer at the most glorious period of the Muhammadan Empire.[49] As the previous Hindu conqueror of Orissa had enjoyed the title of Prime Minister[50] in the teeth of the Musalmán Court, so Mán Sinh received the still nobler appellation of the Son[51] of the Emperor.

I have dwelt at some length on the two Hindu generals of Akbar, for to their policy the Mughuls owed the permanent annexation of Orissa. In the true history of India, I find that battles have been of small use in building up an Empire. A great defeat may put an end to a dynasty, but military exploits little avail in constructing a kingdom. All the raids, invasions, and victories of the

[49] Blochmann MSS.; Ain-i-Akbarí. Vol. i. fasc. iv. p. 371. Hitherto Five Thousand had been the limit of promotion.

[50] Wazír.

[51] Farzand.

Musalmáns in Orissa during the previous three centuries left no permanent trace behind. What the rude valour of the Muhammadans failed to effect, the calm unbending statesmanship of Akbar's two Hindu generals accomplished, and from the year 1590 Orissa appears as a peaceful dependency of the Delhi throne. The more I look into the matter, the more satisfied I am that each of the races which have successively governed India, has been the one which for the time being best deserved to rule. We make a great mistake in thinking that the Musalmáns owed their supremacy to brute strength. No great Empire was ever built up and supported by such ignoble means. The history of Orissa stands forth as a type of the Muhammadan system of conquest; and it was not until the interests of the Province were made identical with the interests of the Empire that it became a constituent part of the Mughul Power. Two hundred and fifty years of confused fighting had gone for nothing. Akbar's Hindu generals found the Province in a state of constant change amounting to anarchy; and by one or two battles, followed up by a liberal recognition of the rights and prejudices of the native population, they substituted a civil government for a whirlpool of dynastic revolution and foreign invasion. The Muhammadans ruled in Orissa, because they alone at that time knew how to rule; they ceased, as we shall afterwards see, to retain Orissa when they no longer deserved to keep it.[52]

While the Hindu general of Akbar strengthened the native population of Orissa, and restored the Hindu Dynasty to something of its former splendour by placing

[52] I give the Muhammadan governors of Orissa, with the principal events in the Musalmán history of that province from 1510 to 1751 A.D., as set forth by the Persian historians, in Appendix VIII.

him over the Southern Districts,[53] he secured the loyalty of the Afghâns by allowing them to retain the government of the northern part of the Province. But nothing could make the Afghân conquerors of India forget their departed greatness, and this arrangement lasted only two years, 1590–92. I give the details of their incessant revolts in an Appendix. As already stated, their present perfidy brought down Rájá Mán Sinh again upon Orissa; and although the Afghâns made a last despairing stand,[54] the valour and strategy of Akbar's Hindu general again prevailed. From 1592, the Imperial Commissions[55] appointing a Governor of the Lower Provinces include 'Bengal, Behar, *and Orissa.*' The Hindu element remained loyal amid the perfidy of the Afghâns; and the head of the native Orissa dynasty, along with several of his family, still stand in the roll of the grandees of the Delhi Court. Hereafter the Orissa Afghâns, although they fired up from time to time, found themselves crushed between the Mughul Province of Bengal on the north, and the loyal Hindu dependency of Orissa on the south. In 1598 they took advantage of the Bengal Governor's absence to rebel, but received so severe a punishment as to effectually quiet them for the next thirteen years. The Mughul Emperor showed tenderness to the other Muhammadan race who had ruled India before his own. On the humble submission of the Afghâns, he allowed them to retain their Orissa fiefs. But they again abused the Emperor's compassion, and in 1611 led out an army of twenty thousand troops, scornfully rejecting the embassy which the Bengal Governor sent to reason with

[53] Part of Cattack, with all Purí, Khurdhá, Ganjám, and a few of the southern Tributary States. See previous note.

[54] At Sarangárh.

[55] Sanads.

them. In vain the envoy urged the hopelessness and folly of revolt; in vain he expatiated on the common religion of Afghán and Mughul, and showed that, according to their Sacred Law, it was their duty as the weaker power to peacefully accept their fate. 'Nations rise and fall by destiny,' he said. 'For six hundred years the Afgháns ruled India with despotic sway. Fate had now made over the sceptre to the Mughuls, and the Afgháns ought therefore to bear their lot with resignation, and bow before the divine decree.'[56]

But the Afgháns still refused in this their supreme moment to bend their stiff necks, and their total defeat followed. Their conqueror[57] did not stay his hand till he had absolutely exterminated them as a race. For this exploit he received the title of the Hercules of the Age, with the exalted official rank of Commander of Six Thousand Horse. But even his severity forms a memorial of the generosity of the Muhammadans in dealing with people of their own religion,—a generosity which Christians would do well to imitate. He broke up their clans into families, distributing them among the villages of Orissa, and thus deprived them of the means of political combination, while he provided for them lands sufficient to maintain the dignity of the Muhammadan race. They soon became absorbed in the petty landholding class, and twenty years later formed so marked a feature in the rural population as to attract the notice of

[56] See Stewart, Hist. Beng. p. 134, who, with regard to this period, follows the Tuzuk-i-Jahángírí.

[57] Shujá'at Khán. Stewart (Hist. Beng.) speaks of their final defeat on the banks of the Subanrekhá, but gives by mistake, as an account of the battle, the story of another fight which must have been fought close to Dacca, as the Musalmán general is recorded to have received daily reinforcements from that city, and to have marched to the battle-field, fought the engagement, and returned within twenty-three days. Blochmann MSS.

the Dutch. In 1631 Joannes de Laët[58] states, indeed, that the Uriyás were chiefly Muhammadans, meaning, no doubt, the chief families in each of the Orissa villages. But the haughty Afghán conquerors of India could not settle into industrious husbandmen. During the past two centuries they have dwindled in numbers and in wealth, and now form an altogether insignificant class of the rural community. Of the three British Districts into which Orissa is divided, they do not exceed one-fourteenth of the population in Cattack, the one in which they muster strongest. Of the 1486 separate estates of Balasor District, they only hold 93 petty properties, paying an average rent to Government of but £17 a year. In the southern District of Orissa, Purí, they have fallen still lower, and do not now number one per cent. of the population.[59]

The Hindu element having thus been conciliated, and the Afgháns exterminated, Orissa became a favourite governorship of the Mughul Empire. About the year 1600 the Sultán Akbar granted it with Bengal to his eldest son, who afterwards succeeded him. Five years later, the aged Emperor on his deathbed, while declaring his first-born heir to his throne, desired that his grandson[60] should be assured of an asylum in the same distant

[58] De Imperio Magni Mongolis, sive India Vera. Elzevir, 1631. Its author, Joannes de Laët, was one of the earliest Directors of the Dutch East India Company, and it has recently been translated by Mr. E. Lethbridge, M.A., Calcutta 1871. The worthy Dutch Director dismisses Orissa with five lines—just sufficient to show that he knew nothing about it.

[59] I take these facts from my Statistical Accounts, based upon local inquiries; *vide* Appendices I., II., and IV. of this volume. In briefly reciting the Afghán history of Orissa, I have not deemed it right to encumber the text with the details of their petty fighting. Those who are interested in such matters will find them set forth for the first time in Appendix VIII. They have been compiled from the Persian originals, viz. the Akbar-námah, Aín-i-Akbarí, Makhzan-i-Afghání, Badáoní, and Tuzuk-i-Jahángirí.

[60] Prince Khasrú.

and fertile Province. The new Emperor[61] in 1606 made over these favourite governorships to his foster-brother.[62] From 1612 to 1622, Orissa and Bengal rested under the strong rule of the brother-in-law[63] of the Empress, whose beauty and wit had raised her from a lowly station to the throne of the world.

But the military position of Orissa pointed it out as a natural permanent basis of revolt. In 1621 the rebellious Prince, Sháh Jahán, the son of the Emperor, and himself destined on his father's death to succeed to the throne, after flying some thousand miles before the royal forces, found a safe asylum in Orissa. From its safe network of rivers he sallied forth, exactly as the Afghán chiefs had done before him, on Bengal. His army swelled after each petty victory; and although the European factories faithfully adhered to the Emperor, the rebel managed to get together some artillery under vagabond Christians, which enabled him to hold important cities of the Province. Secure of a retreat into the almost impenetrable delta of Orissa, the young Prince willingly accepted great risks, and accordingly won unexpected victories. In the end he slew the Imperial Governor, and from 1622 to 1624[64] ruled Bengal in the teeth of his father the Emperor's armies. The last-named year witnessed his defeat. He fell back upon Orissa; and after placing that Province between him and the Imperial troops, wrote a penitential letter to his father, and was forgiven.

Seventy years elapsed before Orissa again emerges in the history of the Empire. In 1695, the head of the

[61] Jahángír. [62] Kutb-ud-dín.
[63] Ibráhim Khán, who married a sister of Nur Jahán.
[64] Or perhaps 1625; authorities differ.

Afghán clan gathered together the remnants of his race still scattered throughout the Province, joined his forces with those of a disaffected Bengal chief, and raised the standard of revolt against the Empire.[65] During the three years' war which followed, the base of operations of the Imperial armies was Dacca, in the network of the Gangetic rivers; that of the rebel troops was Orissa, the delta of the Mahánadí. The intermediate country formed the arena on which Afghán valour and want of wisdom displayed themselves for the last time to the Indian world. The European Settlements again proved loyal to the Delhi Emperor; and to this war, the Dutch, French, and English owed the permission to fortify the factories, which afterwards overturned the Imperial throne.

Two romantic episodes rescue this struggle from the oblivion to which I, in general, consign the dreary hostilities that have hitherto made up Indian history. At the siege of the capital of Bardwán District, when all hope of relief had departed, the ladies of the Hindu Rájá's family resolved with one consent to prefer death to the mercies of a rebel. The Rájá himself, whose descendant of the sixth generation now enjoys the principality as one of the great subjects of the British Crown, had fallen in battle outside the walls. While the rebels poured into the city, the whole ladies of the palace took poison, and the conquerors broke into their apartments only to find them dead. On one, however, the poison had not acted, and she was reserved for the rebel chief. But no arts could persuade the noble Hindu girl to receive such a lover. The enraged rebel at last substituted force for entreaty, on which the Princess drew a knife from her

[65] Rahím Khán was the name of the Orissa Afghán chief; Subhá Sinh, a Bardwán Zamindár, that of the rebel Bengal leader.

clothes, stabbed the ruffian to the heart, and then plunged it in her own. The Bardwán Mahárájás still commemorate these heroic ladies by a graceful domestic ritual each succeeding spring.[66]

So perished the Bengal chief of the rebels. On his death the insurgent army raised thé Orissa Afghán leader to the sole command, and he assumed the royal title. This last representative of a conquering race has left behind a story of a nobler sort than that by which the name of the Bengal chief survives. He tried to strengthen his party by diplomacy not less than by valour. But a great fief-holder of the Empire, near Murshidábád, threw back his overtures with scorn, calmly saying, 'that being an officer in His Majesty's service, and a faithful subject, his duty and his inclination alike forbade him to espouse such a cause.' The Afghán swooped down upon the loyal feudatory with a column of horse; and as such struggles were constantly decided by single combat between the leaders, a nephew of the attacked chief rode out and challenged any warrior of the Afghán army. No single horseman responded, and the Orissa Afgháns basely closed round the youth and cut him to pieces. Forthwith the loyal fief-holder, in rage and indignation, 'although only dressed in a single vest of fine muslin, and without waiting to put on his helmet, vaulted on his horse, and galloped to the field.' Such a challenge the Afghán chief could not refuse, and in the duel which followed the Imperial officer's sword shivered into pieces against the Afghán helmet. The loyal chief, seeing nothing but death before him, hurled the hilt of his

[66] I obtained this account in conversations with His Highness the present Mahárájá, to whom I would also acknowledge my obligation for several important letters, *Sanads*, and family documents.

weapon into the rebel's face. This last act of despair almost gave him the victory. The Afghán fell stunned from his horse; and his opponent, leaping to the ground, plunged his dagger at the Orissa leader's throat. But the helmet chain warded off the first blow, and before a second could be given the combatants were encircled by the Afghán troopers, and a thousand scimitars pierced the breast of the loyal chief.

The Orissa Afgháns now advanced northwards through all Bengal, sacking cities and firing villages as they went. No one dared to tell the disastrous tidings at Delhi, and the Emperor first learned from a newspaper that his fairest Province had been wrested from the Empire. He despatched in hot haste against the rebels a soldier of fortune, whose very name, Strongfist,[67] bears witness to the troubles then gathering round the Mughul Dynasty. After another year of confused fighting, during which the rebel leader enjoyed the pomp and the cares of sovereignty, the insurgents were utterly defeated (1698), and the Orissa Afgháns disappear for ever from history.

But Orissa still remained a source of weakness rather than of strength to the Empire. The politic Governor who ruled Bengal from 1704 to 1725, in despair of being able to get in its revenues by civil administrators, made it over to soldiers of fortune, who collected the land-tax at the spear-point, and kept back as much of it as they dared from their distant master. As the latter strengthened his power, however, he sent his son-in-law[68] to govern Orissa, 1706, and annexed the

[67] Zabar-dast Khán.

[68] Shujá-ud-dín Muhammad Khán. The first plan of making over Orissa as military fiefs was carried out by Murshid Kulí Khán in 1701, as Diwán of Bengal. He became sole Governor of the Province in 1704.

northern part[69] of the Province to Bengal. But he did not venture to subject it to the rigid revenue system which he enforced in the latter country, and Orissa seems to have been justly and leniently managed under his son-in-law till 1724. This politic chief tried to deprive the Province of its traditional character as an asylum for revolt by breaking through its isolation. He established a post twice a day to his father-in-law's capital at Murshidábád, and on the death of that Prince took advantage of the improved means of communication to ride off to Bengal with a column of Orissa Horse, with which he peaceably seized the Government of both Provinces.

Five years afterwards, 1729–30, I find the Orissa mercenaries employed to subdue the northern Province of Behar; and on the appointment of a new Governor[70] of Bengal, 1740, the Orissa soldiery rose in arms to support the family of their late leader. In short, the new Bengal Governor again found an Orissa insurrection on his hands in the first year of his rule, and the Province maintained its old reputation as an intolerable incubus on the Empire. By this time the final calamities were closing round the Mughul Dynasty. In 1742 the Marhattás came down upon Bengal, and found Orissa an admirable basis for their annual inroads, exactly as the Afgháns had for their revolts. Nine years later, 1751, the Governor of Bengal gladly bought them off by making over to them the chronically rebellious Province. He flattered himself that he lost nothing by ridding himself of a territory that had proved from time immemorial a festering sore in the side of the Empire, and grudged

[69] Midnapur District. Stewart's Hist. Beng. 232.
[70] Alí Vardí Khán.

much more the petty tribute of £120,000 a year which he had to pay the Marhattás for Bengal.[n]

The treaty of 1751, which severed Orissa from the Mughul Empire, nominally preserved the dignity of the Emperor, and appointed an Afghán chief to govern in his name. But although the Commissions still bore the Imperial seal, the Imperial Deputy collected the Land Tax with Marhattá Troopers, and made over £40,000 a year (practically all the revenue he could collect) to the Marhattá Prince. In a very short time this last pageant of dependence upon the Empire disappeared. The Afghán Deputy was assassinated, and his successor speedily found himself unable to carry on even the appearance of a Government. The ancient feudal organization among the peasantry and native chiefs, although long since powerless for purposes of useful defence, still availed for harassing resistance. In 1755-56 the nominal Deputy of the Mughul Emperor could not wring even the stipulated Marhattá tribute of £40,000 a year out of the Province, and begged to be released from his office.

[n] The Abstract of the Treaty, as given by Major Stewart, runs thus :—

'1. That Mír Habíb (an Orissa ally of the Marhattás) should be considered as the deputy of the Nawáb; that he should receive orders to appropriate the revenues of Orissa to the payment of the arrears due to the troops of Rájá Raghují Bhonslá; and that over and above the said assignment, the sum of twelve lakhs of rupees should be paid to the said Rájá's agents yearly, on condition that the Marhattás should not again set foot in His Highness the Bengal Governor's territories.'

'2. That the river Subanrekhá, which runs by Balasor, should be considered as the boundary between the two dominions; and that the Marhattás should never cross that river, nor even set foot in its waters.'

The text of the abstract gives the word Sunámukhí, probably by mistake for Subanrekhá. The latter runs by Jaleswar, a little north of Balasor. The only river which runs past Balasor itself is the Burábalang. Another abstract of the treaty is given by Stirling, As. Res. xv. p. 298, fixing the limits of the ceded country between the Fiscal Division of Patáspur and Málud on the Chilká. See also Duff's Hist. Marhattás, ii. 39, 54 (Bombay ed. 1863); Orme's Indostan, ii. 44 (Madras ed. 1861).

A few months later (1757) a Marhattá obtained the undisguised Governorship,[72] and from that date till 1803 Orissa remained a Marhattá Province.

In the same year Clive fought the battle of Plassey, and wrested the adjoining Province of Bengal from the Delhi throne. The Mughuls lost Orissa only when they had ceased to be worthy of holding it. Akbar's two Hindu generals, in the sixteenth century, established a system of Civil Government upon the wreck of the Native Dynasties. Their wisdom and policy gave the unhappy Province a hundred years almost of rest (1590–1695 A.D.); but from the end of this period the feebleness of the Delhi Court, and the venality and perfidy of its servants in Bengal, obliterate every trace of Civil administration in Orissa. A greedy and generally a disloyal Deputy wrung from it an uncertain revenue, in the name of the Emperor, but for his own behoof. The wretched peasantry, ground down beneath a military occupation, had no appeal to any superior power which had an interest in preserving them from destruction. A rapid succession of rude soldiers harried the Province, and got together as much plunder as their brief tenure of office allowed them. Of the infamies that were perpetrated in his name, the distant Emperor knew nothing. Even the military disorders which had their permanent root in Orissa, and which from time to time threatened the whole of Bengal, seldom reached his ears. The Musalmán bigot on the Peacock Throne heard of the greatest of these revolts only when the rebel army had conquered half Bengal, and even then he was left to learn it from a chance paragraph in a newspaper. If ever the time comes when the British

[72] Orme, 274, Madras ed. 1861. As. Res. xv. 209.

Government fears to listen to the truth, or when its servants hesitate to speak out unwelcome facts, the period will have arrived for those who hold Indian stock to sell out at any sacrifice.

But wretched as the state of Orissa had been under the Mughuls, a half century of deeper misery remained for it under the Marhattás. The memory of these fifty years haunted the whole population like a nightmare, long after it passed under British rule. One of our earliest Commissioners gathered together the oral and manuscript records of the period; and the result is a scene of extortion, desolation, and rapine, which even at this distance cannot be read without indignation and horror.[78] I refrain from reproducing details which disgust without instructing. His opening sentence contains the argument of the whole: 'The Administration of the Marhattás in this, as in every other part of their foreign conquests, was fatal to the welfare of the people and the prosperity of the country; and exhibits a picture of misrule, anarchy, weakness, rapacity, and violence combined, which makes one wonder how society can have kept together under so calamitous a tyranny.'

The Marhattá Prince had his capital or standing camp at Nagpur, in Central India, and waged incessant war upon his neighbours. His Deputies, who were constantly changed and imprisoned on their recall, struggled to wring out of Orissa—the only peaceful Province of his kingdom—a sufficiency to supply the military necessities of their master. Whoever had money was the natural enemy of the State. The ancient Royal House was first plundered. The Marhattá Deputy doubled the tribute at which the Musalmáns had confirmed

[78] Mr. Stirling's Account in As. Res. xv. 299–305, quarto.

him for ever in his estates. Instead of £90,000 a year, the Marhattá demanded £180,000;[74] and as his whole revenue (public and private) was only £200,000, even the Marhattá cavalry failed to make good this extortion. All the offices connected with raising the revenue were sold to the highest bidder at the Marhattá Court in Central India, six hundred miles off. Every Deputy who came to Orissa had ruined himself in order to buy his appointment, and he well knew that the time allowed him for rebuilding his fortunes would be but short. From the hereditary Orissa Prince he managed to wring about £130,000 a year; the smaller proprietors he ousted without mercy from their lands; and he laid heavy burdens upon the pilgrims of Jagannáth.[75] By degrees these atrocities began to work their own cure. The peasant militia of Orissa, strong in their network of rivers, defied the Marhattá troops; and the collection of the revenue in the hilly frontier simply reduced itself to an annual campaign, 'in which, to say nothing of the expenditure of blood and treasure, the Marhattás were nearly as often worsted as successful.'[76]

I have most carefully examined the records of this period, but I can detect absolutely no trace of anything like a Civil Administration. The Marhattá cavalry harried the country at stated periods each year, and departed with the spoil. The village communes alone stand out above the stormy waste of waters, and their internal organization formed the only sort of Civil Government during the forty years which preceded our accession. This organization I have described in Chap-

[74] Mackenzie MSS. Bengal As. Society's Library, vol. xv. (unpaged); and MS. materials collected by me in Orissa.

[75] *Vide ante*, Chap. III.

[76] As. Res. xv. 302.

ter II., and shall again refer to in the following pages. Each village had its semi-hereditary, semi-elective heads, who ruled the hamlet and represented it to the Marhattá receiver. When the extortions of the latter passed all bounds, the village temporized till it could get its head-men out of his clutches, and then the whole community decamped with its cattle into the jungle. Fixed property did not exist, and the peasantry soon learned the powerlessness of cavalry amid morasses and forests. The few landholders who had houses worth burning, belted them round with dense thickets of bamboos. A winding narrow passage afforded the sole means of approach, and these jungles formed secure fortifications against invaders who would only fight on horseback. Such greenwood defences survive to this day. Once in the Tributary States,[77] being struck by the close overgrown site of a chieftain's fort, an old man explained to me that the jungle had been planted to keep off the Marhattá Horse.

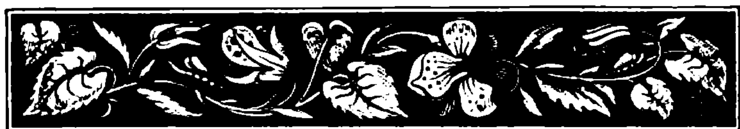
But though the swamps and forests yielded an asylum from the Marhattá spearmen, the peasantry could not fly from the consequences of their own flight. The Province lay untilled, and any failure of the unparalleled bounty of nature, which each Autumn turns the Delta into a sheet of rice, produced a famine. Within seven years two terrible scarcities afflicted Orissa. We know what happened in 1866, when rice rose to threepence per pound, and three-quarters of a million of men perished within six months, in spite of every effort of Government. What, then, must have been the misery of the people in 1770, when silver had three times its present purchasing power, and yet rice rose to sixpence

[77] In Athgarh.

per pound? The natural scarcity in Orissa was at least six times as great; and instead of being mitigated, as in 1866, by State importations and relief depôts, it was intensified by a mutiny of foreign troops. While the people were dying by hundreds of thousands on every roadside, the Marhattá soldiery threw off the last vestige of control, and for many months ranged like wild beasts across the country. Seven years afterwards, 1777, another great famine ensued; and as the Marhattá power at Nagpur decayed, each party into which it split separately harried and plundered the Province.[78]

I willingly close a chapter in which each successive paragraph would have to disclose a deeper abyss of human misery. Our early Commissioner, with the results of those fifty years of affliction before his eyes, might well wonder 'how society could have kept together.' To some of the lasting effects of Marhattá misrule, such as depopulation and the most revolting form of slavery, I shall reluctantly have to return, in unfolding the state of the Province when it passed under British Rule.

[78] The turbulence and unrest of the Marhattá soldiery in Orissa broke out in constant raids against the adjoining Districts, and have left memorials alike to the north and to the south. Mr. Bayley's memorandum on Midnapur, dated 7th January 1852, p. 100, etc.; Proceedings of Government, Persian Department, December 17, 1764. In the Government Records of those days, the Marhattás constantly appear as 'plundering.' One instance will suffice. 'Three months the Marhattás have remained here,' wrote the Rájá of Bardwán to Government, 'plundering and laying waste the whole country; now, thank God, they are all gone, but the inhabitants have not yet returned.' Progs. Persian Dept., August 1760. Sel. Unpublished Records, by the Rev. J. Long, Calc. 1869, No. 491.



CHAPTER VII.

THE ENGLISH AS SETTLERS AND GOVERNORS IN ORISSA.

THE ecclesiastical annalists complain that no materials exist for the history of Innocent VI., 'the most powerful and most prudent of the Avignonese Pontiffs.'[1] The other Popes who disgraced the Tiara, and stained the chair of St. Peter with blood, have left behind them ample records to attest the miseries which they inflicted on mankind. But in the correspondence of the pious Limousin, who governed the Church in the middle of the fourteenth century, scarcely a single document of historical importance can be found. The Archives of his Pontificate yield only a few papers on dry official matters, trifling dispensations, and technical decisions of the Ecclesiastical Courts. From the absence of the materials for history, the Church Annalists have rightly inferred the peaceful and prosperous character of his rule. In the last chapter I have exhibited the stirring series of events and revolutions which took place in Orissa under its Muhammadan and Marhattá conquerors. But no sooner did the Province pass under British sway in 1803, than the materials, hitherto so abundant, suddenly cease, and the history of Orissa comes to an end. Conflicts with external enemies be-

[1] Milman, Hist. Latin Christianity, vol. viii. p. 12, ed. 1867.

come a thing of the past; invasions and military occupations fade from the memory of the people; a single local rising is the only warlike event I have to narrate; and the Province which, during four centuries, had formed the traditional asylum of revolt, has lapsed into the most peaceful part of the British Empire.

True to our national character, we settled in Orissa as merchants long before we made our appearance as rulers. Our earliest factory in Bengal lay within its boundaries; but even this factory does not represent the first connection of Orissa with a European Power. In 1498 the Portuguese arrived in India *via* the Cape, and during the next sixteen years established themselves on the Madras coast. The natives, alarmed by their growing importance, fell upon their principal fort, temporarily expelled the foreigners, and about 1514 A.D. pushed them northward to the mouth of the Subanrekhá in Orissa.[2] Here they founded a fugitive colony at the town of Pippli, now a ruined and silt-locked village, about ten miles up the river, but then a fine harbour commanding a free approach from the sea. They did not seem, however, to gain very much by their new settlement; and while the names of the Dutch, French, Danes, and English still live in the mouths of the people, that of the Portuguese has utterly disappeared.

From a letter written by our servants, dated Patna, 1620, the Portuguese appear as still in possession of Pippli at that date. But they had during the previous fifteen years made themselves very unpopular with the Mughul Governor of Bengal. On the other side of the Bay, in their great settlement at Chittagong, their bigotry

[2] Travels of Sebastien Manrique; Murray's Asiatic Discoveries, vol. ii. p. 99, ed. 1820.

had provoked a Musalmán persecution, which ended in their defying the Mughul Government, and establishing themselves as an independent piratical power in Eastern Bengal. They blockaded the mouths of the Ganges and the Brahmaputra, and invaded Bengal with a host of Arakanese savages, whose devastations compelled the Musulmán Governor to fix his capital in the heart of the Delta, so as to be nearer the seat of the war.[3] In 1621, the Portuguese at Huglí refused artillery to the Prince who reached the Delhi throne six years later. Accordingly, in 1632 the Imperial troops sacked the refractory city, slew a thousand of the foreigners, and drove off other four thousand as slaves. The new Emperor could not forget their refusal to help him when a rebel Prince; and in 1634 he established ourselves on the ruins of the ancient Portuguese settlement at Pippli, in the north of Orissa.[4] Two years afterwards, an English surgeon[5] had the good fortune to cure a daughter of the Emperor whose clothes had caught fire, and in 1640 he successfully treated one of the ladies of the Bengal Viceroy's zanáná. When asked to name his own reward, the patriotic doctor said he wished nothing for himself, but begged that his countrymen might be allowed a maritime settlement in Bengal. The public-spirited surgeon died before he could even receive the thanks of his masters, but not before the Imperial commissions had been made out granting the

[3] A.D. 1607–1609. Musalmán capital changed from Rájmahal in Western to Dacca in Eastern Bengal.

[4] Joannes de Laët, de Imperio Magni Mongolis, bears witness to the Portuguese at Pippli (Philip-patam) in 1631. Mr. Lethbridge, the able editor of that work, says that an interesting account of this port is to be found among the Dutch archives, transferred in 1853 from Chinsura to the Hague.

[5] Mr. Gabriel Boughton, of the ship *Hopewell*.

English a land factory at Huglí, and a maritime settlement at Balasor.

These two Orissa harbours—Pippli, founded in 1635, and Balasor, founded in 1642[6]—formed the basis of our future greatness in Bengal. Two other European nations, not less enterprising than ourselves, had appeared in that Province before us, and managed to monopolize the best sites for trade. The Portuguese had fortified themselves in the royal port of Huglí, and their fleets commanded the whole seaboard from Chittagong to Orissa (A.D. 1517-1615). The Dutch had joined with the native powers to put down the Portuguese, established themselves on the ruins of the eastern settlements of that nation (1615), and effected an entrance into Bengal (1625). But the very advantages of the Dutch and Portuguese settlements proved their ruin. They found themselves involved in the incessant struggles and revolutions which afflicted Bengal, long before they were strong enough to take part with safety in so great a game. The Delhi Emperor viewed with well-grounded suspicion the establishment of an *Imperium in Imperio* in the Gangetic valley. After harassing the settlers with exactions and ignominies of various sorts, he decided that no European ship should enter any of the Bengal rivers; and when our patriotic surgeon extorted from him a great maritime settlement for the English, he fixed it outside, on the Orissa coast. There we obscurely grew strong, remote from the great events in Mughul history, and generally able to hold our own amid the troubles which on a smaller scale afflicted that Province.

Our two land factories at Huglí and Patna, to which no English ship might penetrate, suffered the oppressions

[6] Wheeler's Madras, from the Official Records, i. 32, footnote.

and misfortunes incident to Asiatic misrule, and from which our Orissa harbours escaped. Between 1664 and 1677 the difficulties of our position on the Huglí led to our establishment of what we called Pilot-boats, a sort of furtive fleet for running the blockade of the Bengal rivers. Our vexations nevertheless continued so great, that in 1677-78 we threatened to withdraw from Bengal altogether. What between the ignominious poll-tax on us as infidels, and tolls, bribes, transit duties, and forced presents of guns and horses, the English factors on the Ganges led a life of peril and contumely which our Orissa settlements knew nothing of. Till 1680, the latter remained the sole harbours which English ships dared to frequent; and although in that year we got an Imperial grant allowing our vessels to enter the Ganges, and saluted it with 300 guns, the new privilege proved at first only a source of new difficulties.

Meanwhile the Orissa Settlements continued to flourish. Silver had still six times the purchasing power which it has now, and the Orissa factors bought up at the lowest prices for ready money the fine muslins of Cattack. The troubles of the times made it prudent to concentrate their forces, and the silting up of the Subanrekhá led to the transfer of the original factory at Pippli to the head establishment at Balasor. Here we fortified ourselves in a strong position, defended by the river on one side, and by a precipitous channel which we deepened into a natural moat, almost the whole way round the other three. We mounted guns on the ramparts, an armed sloop or two lay off in the river, and our merchant-fleet bristling with cannon commanded the Balasor Roads sixteen miles down. Afghán and Mughul worried each other without let or hindrance on our part. Every year

our factors made their advances in good English silver, and got together an 'Investment' in country goods. High profits covered the losses which the marauding soldiery now and then inflicted on us, when they burned a weaving village which had got an advance from the factory, or speared a few hundred artisans working at our expense. Indeed, the universal misery of the Province rather strengthened our hands. The only safe place for quiet people was the English factory. Industry and commerce gathered themselves together around it, and manufacturing hamlets nestled within the shadow of its walls. We were always ready to bear a good deal rather than to take the risks of war, and, generally speaking, we were courted rather than attacked. Amid the constant flux and reflux of parties and warring races in Orissa, the English factory, with its guns on the ramparts, stood forth as the one permanent power. When no fair concession would satisfy a belligerent chief, our factors loaded their cannon, lit their matches, and told him to come on.

The English in Orissa could not, however, escape the disasters which involved their countrymen throughout all India during the last years of the seventeenth century. In 1685, our Bengal servants, driven to extremity by the oppression of the Mughul Governors, threw down the gauntlet. The Company fitted out two fleets, one to capture the Mughul ships trading from Surat, the other, with six hundred regular troops on board, to wage war by sea and land upon Bengal.[7] Of the latter, Job Charnock, who twelve years afterwards founded Calcutta, took the command. But his flotilla did not prosper, and he was forced to take shelter on a

[7] Orme, ii. p. 11.

malarious island at the mouth of the Huglí.[8] After a treaty, which would have condemned the English to the fever-stricken swamps[9] amid which that river merges into the sea, but which we broke within three months after we had made it, the war was renewed (1688). This time Captain Heath commanded; and after in vain negotiating for a fortified factory on the present site of Calcutta,[10] to secure the Company's trade 'from the villanies of every petty Governor,'[11] he determined to quit Bengal altogether. He accordingly embarked all the Company's servants and goods from their 'fenceless factories,' sailed down the Huglí, and anchored in the Balasor Roads. Here the Musalmán Governor gave some trouble, and seized two of 'the English gentlemen' of the local factory. Captain Heath improved the brief period which he allowed for a negotiation with this magnate, by capturing two French ships that happened to arrive in the Roads. He then landed his troops, dislodged the Musalmáns from their outposts, and finally drove them from their 'grand bulwark,' which had only 'about half a dozen great guns, disorderly placed and unskilfully levelled.'[12] In short, our English sailors behaved as they always have behaved in front of an enemy. The Musalmán Governor soon had enough of them, and very gladly accepted a new treaty which the Viceroy of Bengal had just signed.

[8] Injili.

[9] At Ulabariá on the Huglí, then a part of Orissa, and now the port at which the Orissa Canals debouch upon the Gangetic Delta.

[10] Then called Sutá-nati.

[11] Letter signed William Heath, dated 'Aboard the *Resolution*,' 11th October 1688.

[12] Captain Heath's Log-book, dated 29th November 1688; quoted from the *East India and Colonial Magazine* by the *Englishman's Weekly Journal*, Calcutta, April 22, 1871.

From this time forward, the English factory had little to fear from the Muhammadan Governors of Orissa. It pursued its speculations unconcerned amid the wreck of the Mughul Empire, calmly storing up its merchandise behind its cannon-mounted parapets. Nevertheless it declined in importance, as its younger rival on the Huglí gradually grew out of a cluster of mud-huts into the metropolis of India. Nature also, and the bar-building ocean, declared against it. Throughout the seventeenth century, the influences which throw up banks across the mouth of the Orissa rivers went on steadily with their work. Our earliest port on the Subanrekhá, a little to the north of Balasor, had early been ruined by this cause. The time of desolation was now rapidly approaching for Balasor itself, and a traveller in 1708 found the river blockaded by 'a very dangerous bar, sufficiently well known by the many wrecks and losses made by it.'[13] Even then, however, the approach remained much better than it is now. During the next century the river and the sea threw up several miles of new land, and the town, which in 1708 was only four miles as the crow flies from the shore, is now seven. Indeed, all the Orissa channels have deteriorated since then, and the same traveller mentions a fine estuary of the Cattack River with 42 feet of water on the bar at spring tides, which has now completely silted up.[14]

Nevertheless Balasor still continued to flourish. The troubles of the times made us abandon our old factory at Cattack, the inland capital of the Province; and Balasor thus monopolized the whole trade of Orissa. This, too, in spite of the fact that goods sold at sixty per

[13] Hamilton's East Indies from 1688 to 1723, vol. i. p. 393, ed. 1727.
[14] Hamilton's East Indies, p. 389.

cent. cheaper in Cattack market than at Balasor.[15] The truth is, that it had ceased to be safe for European merchants to trade anywhere beyond reach of their ships. We have seen how in 1688 our Admiral had resolved to quit Bengal for ever, shipped our servants and goods from the Huglí factories, and stood out to sea. The Orissa factories, as they declined in importance, were in even a more hazardous state. The great entrepot at Ganjám, our nearest factory to Balasor down the coast, had a Resident, a council, artillery, and troops. Yet even here, as late as 1768, the authorities insisted, as their sole hope of security, upon an armed vessel being anchored under the factory walls, 'sufficiently large to ship off our stores in the case of an absolute necessity.'[16] Indeed, a port soon proved the only place where a paying trade could be carried on at all. However cheap might be the inland markets, the tolls and Custom Houses along the road made the goods too dear for exportation before they reached the coast. Besides the royal officers who levied a tax at every few miles, each petty proprietor through whose estate the route lay lined the road with hungry myrmidons. Thus, in the short journey of 103 miles between Cattack and Balasor, the tolls amounted in 1708 to thirty-two per cent. of the total value of the goods. To the southward the licensed depredators ventured on higher flights, and practically anything like internal trade was rendered impossible by the incessant black mail along the roads. Thus, the transit duties on a shilling's worth of timber for forty-two miles by road in Ganjám District amounted to 1s. 4d., or 133 per cent. By a river route the extortions were even greater, and

[15] Hamilton's East Indies, p. 391.
[16] Ganjám MS. Proceedings, 31st December 1768. G. R.

the cost of 8s. worth of timber mounted to 20s. 6d. for the same journey by water, and for tolls alone, irrespective of the cost of carriage.[17]

Accordingly, while all Orissa lay at the mercy of Afghán, Mughul, and Marhattá banditti, the English Factory at Balasor grew into a great seat of maritime trade. We easily got over the difficulty of the want of a local manufacturing population, by making that city the only safe place for peaceful industry in the Province. In Ganjám, the District adjoining Orissa on the south, the commanding officer proposed a regular military occupation of every important weaving village. His plan broke down, as the country was seventy miles long, and of great breadth; but the weavers were concentrated into large villages, and there protected while at work by the Company's troops. This system of removing the weavers 'from their old habitations,'[18] and arbitrarily fixing them in new centres of industry, opened a door for tyranny and forced labour on the part of the Factory. But in Orissa proper, the insecurity and distresses of the people had reached such a height, that they required no pressure to bring them within our fenced weaving villages. In the last century, peaceful industry in Orissa was possible only within range of English cannon, and thousands of weaving families flocked to Balasor and squatted around our Factory.

The merchants of other nations also found themselves compelled to concentrate their factories within reach of their ships. The Balasor citizens still point out the site of these ancient seats of trade. The English

[17] MS. Proceedings of Ganjám Factory, March 1790. G. R.

[18] Ganjám President's Report to the Governor in Council, 2d July 1780. G. R.

House,[19] a dilapidated two-storeyed edifice, has passed into the hands of Hindus, and the Tulsi plant, sacred to Krishna, stands outside the door. The windows of the upper storey, with their shrunken shutters and jealous iron bars, form the miserable outlets through which the ladies of the zanáná peep. In the grounds an old mango tree shades a tank utterly grown over with slime; the outhouses stand roofless, with half their walls tumbled down; and a thatched verandah added to the ancient central edifice gives a look of mean and squalid decay to the whole. In the Dutch Quarter[20] nothing remains but two dilapidated monuments to dead men, a mango grove, and a weed-choked tank. One of the tombstones, a huge rectangular cone, testifies that 'Michiell Jans Burggraf Vanseven Huison, obiit 23 November Ao. 1696.' From the other the inscription has fallen out. The Dutch chose a strong place for their factory, surrounded by natural moats, and approached from the river by the 'Dutch Channel,'[21] now silted up. The river has long ago writhed itself away from the Dutch Quarter, and great rice-fields now stretch between the site of their Factory and the bank.

The Danish Settlement[22] was also fortified by a natural moat, which connected it with the river and defended it from land attacks. On the north side the industrious merchants had excavated a dock, now a filthy slimy hollow, with the black undecked skeleton of a ship rotting in it. The French had their Factory a few miles below the present town of Balasor, embowered in foliage upon the high river-bank. The rivalries and heart-

[19] Ingrezi Kothi. [20] Hollandais-sáhi. [21] Hollandais-nálá.
[22] Dinemár-dingi; cf. Dinemar-dángá (Danish-Land), a village near the French Settlement of Chandernagor on the Huglí.

burnings of these clustering colonies of merchants have long since been hushed, and the only monuments that bear witness to their existence at Balasor are their tombs. The English graveyard[23] shows that, amid all the confusion of the breaking up of the Mughul power in Orissa, amid all the miseries and maraudings of the Marhattá rule which followed, the armed merchants of Balasor married and gave in marriage, had children born into the world, and themselves departed out of it, just as they do in a quiet English village. Little copper flags surmounted many of the tombs; and one of them, with the letters H. S. cut on it, bears witness to the faith of the sleeper in the Saviour of Men. The dates of the tombs begin about 1751, and one cannot help being struck by the low average of life which the inscriptions disclose. The graves of women lie thickest, the sick children having been removed to a village four miles off, on the sea-coast, for change of air; stricken parents struggling to give the dying little one a last chance. As in most of our ancient graveyards in the Delta, the ground has silted up so as to cover some of the tombs, and I had to dig down for the inscriptions. The monuments have the sad and tasteless look of English obituary architecture of that day—heavy masonry platforms; crushing mausoleums, angular piles of brick, black and weather-stained. No trees shade the dismal spot. The deadly dhuturá plant, with its spiked-ball fruit, alone rears its poisonous growth; and a dismal wall of blackish whitewashed brick, with the plaster peeling off, shuts in the little colony of English graves. On one side the ever-closed windows of a rich Hindu's zanáná peer down upon the scene.

But the era of armed industry which these graves

[23] In Bárabátí, well away from the river and its channels.

represent was drawing to a close. As long as the Mughuls or Afghâns retained their hold on Orissa, trade was possible if protected by cannon. But after these races abandoned the Province to Marhattá misrule in 1751, our operations became circumscribed within the factory walls. Thirty years later the Marhattás demanded black mail from the then British Province of Bengal, and we found ourselves too weak to venture on any bolder policy than conciliation and bribes.[24] But the experience of the next twenty years convinced us, that if we were ourselves to remain in India, the Marhattás must be driven out of Orissa. In this Province they had fixed themselves between the British territories of Madras and Bengal, and they used their position as a stronghold from which to sally out on both. On the north-west lay our District of Midnapur, studded with English Factories, the chief[25] of which was at Jaleswar, just beyond the boundary of modern Orissa. On the Commercial Resident of this place devolved the duty of holding the British frontier against the Marhattá Horse. In 1785 I find him writing urgently for more Sepoys; and four years later, a long list of 'acts of violence' had to be submitted to the Governor-General.[26] They devastated the country to the banks of the Huglí itself, and a rich tract on that river now teeming with popula-

[24] The Secret Despatch to the Court of Directors, dated 30th April 1781, leaves no doubt in my mind that Warren Hastings' 'loan' of £120,000 to the Marhattás was really what Philip Francis declares it to be—a bribe. *Vide* Memorandum on Records in the Foreign Department, by the Secretary to the Record Commission, p. 43, fol. 1865.

[25] *Vide* MS. Archives of the Board of Revenue and Midnapur District; E. D. Letters from the Resident at Jaleswar, 14th March 1785, 23d June 1785, etc.; B. R. R.; M. R.

[26] Letter tò Governor-General enclosing Report of Collector of Midnapur, April 1789. B. R. R.

tion, and then a favourite summer retreat of Warren Hastings, had become an absolute waste in 1789.[27]

The hill country which walls in Orissa from the north fared even worse. Almost the only records which I find of the period are reports of depredations or entreaties for troops.[28] Besides the incessant raids on the highland chiefs, the Marhattás every now and then organized regular invasions. The largest of the Hill States suffered two such calamities within a few years; in the first of which the capital was taken, and the Rájá forced to fly with his Princess to the wild tribes in the far recesses of the hills. These simple people received the royal refugees with characteristic hospitality, and 'by voluntary gifts' raised a sufficient sum to bribe the Marhattá invaders to quit the country.[29]

But the hand of the Marhattás fell heaviest on our Settlements to the southward. The long maritime strip of the Madras coast, which gave the Native Dynasties of Orissa so much trouble, had in the eighteenth century become a peaceable English Province. The Governors of Madras bore also the title of 'President for the Right Honourable Company's affairs on the coast of Coromandel and Orissa,'[30] and practically the principal relations of the latter Province continued, as under its native Princes, with the southward. A line of Factories ran up the coast, and at Ganjám, just beyond the present southern boundary of Orissa, we had a great commercial establishment governed by a Council and Chief. I have

[27] Bírkul. Mr. Bayley's MS. Memorandum on Midnapur, p. 121. C. R.; M. R.

[28] *E.d.* Letters from Collector of Midnapur to Governor-General, and replies, dated June, October, November, December 1783, etc. B. R. R.

[29] Memo. on Morbhanj, dated 20th March 1805, para. 7. C. R.

[30] Madras Proceedings, 7th July 1698. Wheeler, i. 336.

carefully gone over the Archives of Ganjám, and it is impossible to imagine a more complete picture of maraud-ing misrule than they present. Here was a body of English gentlemen doing business on the largest scale,[31] and requiring a little army to protect their warehouses, with ships anchored in the river to carry off them and their goods in case of need. Such need might arise at any hour. We frequently hear in the Ganjám Records of Marhattá hosts from Cattack, 'with six thousand horse and some foot.'[32] Reports of an alliance of the French with the Marhattás, to utterly root us out of the country, from time to time alarmed the isolated English Factory.[33] In August 1780, the President announces a force of twenty-five thousand Marhattás coming down upon the District. In the following November the Proceedings bewail the devastations of 'such a rabble of Marhattás marching through the coun-try, that even if they were friends they would be very dangerous.' The Resident had more than once to de-clare that the further existence of the Ganjám Factory depended upon what arrangement the 'gentlemen in Bengal' could make with the Marhattá chiefs.[34]

It may well be supposed that a trade conducted under such conditions could yield but small profit. And unhappily in Ganjám we had already become great land-holders, as well as great merchants and manufacturers. The main question was not so much how to protect the weaving villages as how to get in our rents. The coun-

[31] I find £13,000 for the single item of 'advances to the weavers.' Letter to President and Council, 13th March 1790. G. R.

[32] Proceedings, January 12, 1769. G. R.

[33] *E.d.* 27th February 1770. G. R.

[34] *E.d.* The Governor in Council, Fort St. George, dated 5th October 1780. G. R.

try was covered with forts,[85] which, while they served as strongholds against the Marhattás, also supplied a defence against our land-bailiffs. These memorials of misrule have long ago ceased to be visible in any old settled British Province. But in the more recently annexed tracts of Central India they still dot the landscape, and the traveller by the Great Indian Peninsula Railway sees them for hundreds of miles along his route. Wherever the Marhattás established themselves, such strongholds sprung up. They afforded the very sort of protection required against rapidly moving bodies of horse, and in Ganjám the peasant drove his cattle within their gates with equal celerity on the appearance of the Marhattá cavalry or of the English Rent-collector. The forts proved very unpleasant things to deal with, and the descriptions in the Records show that the Ganjám husbandmen adopted exactly the same style of defences against the Marhattás, as the fastnesses still visible in Central and Western India. One is described as 'about 120 yards square, with towers in the angles, and another in the middle of each curtain, except in the east front, where there is a large projecting gateway; the walls not under 18 nor above 22 feet in height, and a ditch running round three sides, in many parts with deep water; the fourth side defended by a thick wood, which runs to within 150 yards of the walls.'[86]

Civil Government and tax-collecting in a country covered with fortresses of this sort, simply resolved itself into a military occupation. By means of infinite harrying we managed to collect rather more than half the land-tax, and in 1787 only left Rs. 116,775 in arrear, out of a total demand of Rs. 373,700. Piteous letters from

[85] Proceedings, 16th May 1769, etc. G. R. [86] *Idem.*

the Ganjám Resident streamed into the Council Chamber at Madras for more and still more soldiers. But the troops themselves formed a source of danger. Valuable in enforcing the rents, they themselves mutinied with perfect freedom. One letter reports that the native grenadiers have shot down their officers as they came on the parade ground after dinner, and very little more was said about the matter.[37] Every year furnished a list of landed proprietors who preferred fighting to paying; with bitter laments of 'the elopement' of country gentlemen of a weaker sort, who have 'fled to the western jungle,' and are 'inaccessible to pursuit.'[38] But the peasantry themselves, with a fort or a jungle always close at hand to which they could drive their cattle, proved the most incorrigible offenders. The Collector dismisses the most frightful atrocities, as mere matters of course, in a few words. For example, in 1772 he hears that a certain tract is in confusion, 'the inhabitants having burned a great part of the country, and are determined to destroy it.'[39] But such *sangfroid* need not be wondered at, when the Madras Government had passed a solemn 'Resolution for extirpating all such as required force to compel them to make their payments,'—a Resolution which the Ganjám Collector blandly regretted that he could not carry out, as the proprietors 'have ever been accustomed to pay with an army at their gates.'[40]

Nothing could be more characteristic of our national love of order than the persistent efforts which this little beleaguered Settlement of Englishmen made to maintain the appearance of a Civil Government. They held their

[37] Proceedings, 4th October 1780. G. R.
[38] Proceedings, 13th February 1780, etc. G. R.
[39] Proceedings, 20th February 1772. G. R.
[40] Proceedings, 31st December 1769. G. R.

Courts, heard causes, and gave criminals the benefit of a legal trial, with the whole country around them in revolt, and the Marhattá horse picketed under their walls. We hear of murderers labouring 'in irons'[41] on the roads. The manifold entanglements amid which these merchants militant administered the civil law in a country in a chronic state of war, strike with amazement an Indian magistrate of the present day. False swearing seems to have been an essential part in every case. In a civil suit we hear of 'a falce (*sic*) note, and ten falce witnesses to sign it.' The Judicial Records exhibit leading questions of the most glaring sort from the Bench, with no cross-examination of the witnesses. One prisoner on trial for murder declared that his accuser had been 'suborned by a bribe of thirty-six hundredweight of unhusked rice; but let him prove it,' he exclaimed, with an air of injured innocence, 'by putting his hand in boiling oil.'[42] I do not know how far the surrounding atmosphere of corruption infected the 'gentlemen of the Factory;' but I certainly find the following item in the accounts:—'Paid a Bráhman woman for swearing evidences by order of the Committee, £9, 10s.'[43]

But even this faint shadow of Civil Government became impossible in the climax of misrule, amid which the Marhattá supremacy in Orissa received its death-blow. Into the great series of events which then took place in Central India, and which led to the first conspicuous triumphs in the Duke of Wellington's career, I must not enter. The Treaty of Bassein had in 1802 crippled the Marhattá power. But only for a moment.

[41] Proceedings, March 1790. G. R.
[42] Proceedings, 25th January 1790. G. R.
[43] Account Book, under date 26th February 1789. G. R.

The following year brought into the field against us a great native coalition, which the battles of Assaye, Argáon, and Delhi scarcely sufficed to break up. Of these disorders the Orissa Marhattás took advantage to burst out in a paroxysm of violence on our Districts. They trampled out every vestige of civil rule beneath their horses' hoofs, and the supreme hour of British Rule in that part of India seemed to have arrived. Our native troops made common cause with the marauders. In Ganjám, for example, the local battalion, or 'Revenue Corps,'[44] which we had organized for the purpose of collecting the land-tax, and which had hitherto, in a rough sort of manner, discharged this function, now broke out in open revolt. After infinite disturbances, they were disbanded in 1803, and the Collector plainly informed the Madras Government that he could not 'declare the Revenue certain without some regular troops.'[45]

One course alone remained. As long as the Marhattás held their position in the Mahánadí delta, and could sally forth on plundering expeditions secure of a retreat amid its network of rivers, our dominion in the Districts, alike to the north and to the south, hung by a hair. Accordingly, in 1803, Lord Wellesley resolved to root out once and for ever the Marhattás from Orissa. On two separate occasions[46] detachments of our troops had passed through that Province, and our generals possessed a detailed account of the route.[47] The Province had sunk into such absolute desolation

[44] The Sibandís. A corps bearing the same name still protects, or rather infests, the Portuguese Settlements in Western India.

[45] Proceedings of October, November, and December 1802; also of January and February 1803. G. R.

[46] In 1781 and 1790.

[47] From J. Greenwell, Esq., to the Hon'ble Warren Hastings, Governor-General, etc., dated 30th November 1780. P. R.

under the Marhattá Rule, that except at the two capitals, Purí and Cattack, there was 'not another place sufficient to furnish even a single battalion with provisions.'[48] For forty miles not a single hamlet had been left, and our officers reported that everything, even to the firewood, would have to be brought from Ganjám. Accordingly, in July 1803 came the first of a long series of urgent letters to the Ganjám authorities, ordering them to collect waggons and bullocks, with their drivers, rice, sheep, and oxen, not forgetting four hundred litter-bearers for the wounded and sick. In a moment our emissaries covered the District, with money in their hands and spearmen to expedite their bargains. The peasantry, little accustomed to fair dealing from a warlike force, forthwith buried their rice stores, and hurried off their flocks to the jungle.[49] But ready money soon produced its invariable result. The Ganjám Collector had been authorized to spend £30,000, and within five weeks he got together the whole provisions required for a field force of 2400 natives and 600 Europeans during sixty days.

On September 4, 1803, our troops marched out from Ganjám, and, keeping along the shore, halted for the night on the desolate sandbanks of Prayágí, the frontier village on the Orissa Coast. Next morning the little army crossed the boundary, with eight hundred bullock-carts of grain, and 145,000 Rupees in the military chest. As they marched up the narrow sandy strip which separates the Chilká from the sea, one chieftain after another came out to greet them. The Marhattás had made themselves hated by every class of the people;

[48] From J. Greenwell, Esq., to the Hon'ble Warren Hastings, Governor-General, etc., dated 30th November 1780. P. R.

[49] Letter to Collector of Vizagapatam, dated 17th August 1803. G. R.

the petty princes trembled for their lands; the peasantry during two generations had lived in a chronic state of flight into the jungle; and even the priests of Jagannáth had learned to detest their Marhattá co-religionists for their endless extortions and rapine.[60] A couple of cannon and 300 men might have disputed for days the dangerous channel through which the Chilká poured through the narrow sandy strip into the sea. But instead of an opposing army, our general found only a deputation of venerable white-robed Bráhmans, who begged that their temple, the religious key to the Province, might be placed 'under the protection of the British.'[61] The possession of the god had always given the dominion of Orissa, and on the 18th September our army encamped within the shadow of his walls. The four hundred litter-bearers for the wounded gaily stepped along with quite empty palanquins.

But what were the Marhattá Governors about during these precious fourteen days? Though with no hope of help from an outraged people, they might at least have struck a blow for themselves. Yet day after day our troops advanced up the narrow strip and across the boiling outlet of the Chilká, seeing nothing of the enemy except a distant whirlwind of dust, and light-armed horsemen hovering far in the front. At Purí these outlying clouds consolidated into a Marhattá camp firmly posted on the other side of the river which flows past that city. They could have chosen no better post for making a great defence. During the summer the stream dwindled into a chain of marshes and lakes, with inter-

[60] Commissioner's Letter, dated 11th March 1805, etc. O. R. *Vide ante*, Chapter III. p. 123.

[61] Commissioner's Letter to Board of Revenue on the affairs of Jagannáth, dated 26th August 1843. O. R. Also, Marquis of Wellesley's Despatches.

vals of dry land between. But in the rainy season, towards the end of which our invasion took place, it came down in uncontrollable freshets, with huge floods and backwaters, in some places too shallow for boats, in others too deep to ford. The pacific proclamations by which Lord Wellesley had assured all classes of the natives in their rights, could have but small effect with the dark masses of foreign Marhattá horse, drawn up on the other side of these treacherous waters. They opened a sharp fire on our troops, and the time for using the four hundred litter-bearers seemed to have arrived. But half a century of licence and misrule had left to the Marhattás little trace of that unflinching courage which a generation before had decided the fate of a hundred battles. Their cavalry broke and fled before a few whiffs of English grape-shot. We crossed the river, driving them out of the wood in which they had entrenched themselves. For fifty miles we pushed the enemy inland from jungle to jungle, till their horses, panic-stricken by constant retreats, learned to fall back as a matter of course as soon as the grape began to fly about their legs, and tear up the ground on which they stood. On the 2d October we had hastened their movements by a night attack on their camp, while they were leisurely eating their dinner. As a rule, we husbanded our troops, and instead of charging the enemy with men, beat them back across the swamps from a convenient distance with artillery. But we had to wait for our baggage and guns, and another week passed before we reached Cattack City, which we entered unopposed—'the gates open, and all the inhabitants' houses empty.'[52] Six days suf-

[52] October 8. We entered the city by Lálbágh, still the site of the Collectorate offices, and the Commissioner's residence and deer park. I

ficed to build our batteries and extend our approaches to the Fort. This stronghold, firmly fixed between two branches of the Maháṇadí, formed the one difficult fortification in Orissa. Faced with stones, defended by eight small towers, surrounded by a high rampart and a deep moat, '20 to 30 paces broad,' and in some places by a double ditch, its single weak point was the number of hollows in the neighbouring fields, which afforded good cover for the besiegers.[53] At 10 A.M. on the 14th October, an English officer blew open one of the small gates, receiving a wound the same moment in the neck, and a storming party dashed into the heart of the fortifications. A few moments ended the struggle. The Colonel of the attacking party fell with a wound in his leg; two or three soldiers were killed; the Marhattás leaped the ramparts and streamed out of the other gates; about thirty of their dead bodies 'were carried out in bullock carts to the river, where they were eaten by wild beasts and birds;' and the great Province of Orissa, with its 23,907 square miles and three million souls, passed under British Rule.

On the same day, the General, with a member of the Civil Service, formed themselves into peaceful 'Commissioners for the affairs of Cattack,' and despatched Mr. James Hunter to take possession of Purí, and to administer it as if it had been an old settled British District.[54] Once, and once only, the foreign Marhattá

take this account from a private letter by one of the soldiers who was with our troops—Sergeant Christopher Samuel Plummer. I have to thank the Reverend Mr. Buckley, the venerable head of the Cattack Mission, for this and several other curious documents. The good Sergeant afterwards became a very zealous member of the Dissenting body at Norwich. I have checked and corrected his dates from official documents in the Commissioner's office, Cattack.

[53] Mackenzie MSS., folio xv.

[54] Commissioner's Letter, dated 26th October 1843, etc.

soldiery ventured to turn to bay. A desperate struggle with ten thousand of them took place at Pippli, half-way between Cattack and Purí, in which there was 'scarcely an officer but what was wounded.'[55] But the four hundred litters for the sick seem never to have come seriously into play; and so far as my materials show, we won this Province, nearly equal in size to Scotland, and twenty times more fertile than it, at an outlay of £30,000 sterling, and about fifty men.

Yet let no man therefore despise the achievement. Our whole history in India is a narrative of audacious victories, won with a small loss against overwhelming odds. Plassey, which gave us Bengal, with its forty millions of souls, and potential supremacy throughout the whole Indian Empire, cost us seventy-two European soldiers. 'The siege of the Bastille,' says Carlyle, 'weighed with which in the historical balance most other sieges, including that of Troy Town, are gossamer, cost, as we find, in killed and mortally wounded on the part of the besiegers, some eighty-three persons; on the part of the besieged, one poor solitary invalid, shot stone dead on the battlements.'[56] If we won the great Province of Orissa with little loss to ourselves, it is because we deserved to do so. Had our troops started a month earlier or a month later, the four hundred litter-bearers for the sick would have had much heavier work. A few weeks before, the state of the floods would have rendered the country impassable by our artillery, and the malaria would have killed off our men like an infected flock of sheep. A few weeks later, the dry, flat rice-fields would have afforded exactly the sort of fighting ground which

[55] Sergeant Plummer's MS. Narrative.
[56] French Revolution, i. 164.

the Marhattá cavalry loved. Their horse would have devoured our little body of infantry, trampling in upon it from every point of the compass; harassing it on the march, at its meals, by night and by day, during every minute of the twenty-four hours. We chose exactly the time which a Collector of an Orissa District, after years of acquaintance with the country, would now recommend for the advance of a column of infantry against masses of cavalry. Our free-handed outlay of money for provisions and carriage—our carefully collected information as to the route—our pacific Proclamations to the people—our politic benevolence to Jagganáth and his priests—above all, our ceaseless movement forward in the face of the Marhattá soldiery, who were as much foreigners as ourselves, and more hateful to the natives,—in short, every incident of the campaign, merited success and obtained it.

But with the end of the conquest our real troubles began. We had got the land, but we could find no proprietors to engage for its rental, and no peasantry to till its soil. In vain we issued soothing Proclamations; the people had been so long accustomed to despair, that they did not dare to hope. Practically, during the first year any one might till the land who pleased, and our final Proclamation had to elaborately provide for the non-appearance of the proprietors, and for the desertion of many hundreds of villages.[57] The truth is, that at the time we took the Province, land had ceased to have any value in Orissa, further than the worth of the crop which might at the moment be actually standing on it. But a just and settled Government in an Indian Pro-

[57] Commissioner's Circular, 13th September 1804, with instructions to Collectors of 15th *idem*. C. R.

vince raises the price of nothing so quickly as of land. No sooner did the proprietors find that they could make a visible appearance without being imprisoned and plundered, than claimants sprung up as if by magic from the ground; and the difficulty became not to find landholders to engage for the rental, but to decide which among them had the right to receive the engagement. Fortunately, also, we caught the late Chief Revenue Officer of the Marhattás red-handed in enticing the English soldiers to desert and betray our counsels. Him we hanged forthwith, and thereby created a sense of general security among all those who had owed anything to our predecessors.[58]

The permanent difficulty was not to get the proprietors to settle for the rent, but to find a peasantry to till the land. In the last chapter I have passed briefly over the half century of misery from which in 1803 the Province emerged. But I find that I must dwell for a moment on one of its most revolting details, in order that the reader may rightly understand the difficulties which beset our first attempts at Government in Orissa. In India, and indeed throughout Asia, slavery forms the last refuge of an utterly crushed and despairing people. To the honour of the Hindus be it spoken, that anything like the barbarities of our Western Plantations has never been known in Hindustán. The slave in the East may be oppressed, but a Hindu master never beats him; the jungle yields an unfailing refuge to the miserable, and as long as he remains in service he is sure of his daily bread. In another volume, indeed, I have pointed out how such serfdom may merely represent the last resource of labour, when placed by over-population completely at

[58] Sergeant Plummer's MS. Narrative.

the mercy of capital.[59] In Orissa it formed the sole refuge of a people who despaired of earning a subsistence for themselves. During famines, mothers had been accustomed to sell their children for a few pence, and every great household in Bengal, English as well as Native, had domestics of this class.[60] In Malabar alone they numbered 16,574 in 1800, and to this day each of the chief Orissa castes has nominally certain servile families attached to it.[61] Local tradition derives them from the intercourse of castes between whom no *jus connubii* exists, and from the old practice of the father-in-law presenting to the bridegroom a bevy of young handmaids along with the bride. Each caste has thus its own illegitimate or servile branch, except indeed the Bráhmans, who are otherwise supplied.

This ancient and not unkindly form of serfdom existed from time immemorial in Orissa. But the miseries of Marhattá misrule developed a new and altogether different phase of slavery. The peasantry, in despair of wringing their daily bread from the soil, either sold themselves across the seas, or were driven to the coast like dumb creatures, and shipped on board by their marauding Governors. The Ganjám Records disclose miserable gangs of them who had been landed for sale in Southern India, and rescued by the compassion of

[59] Annals of Rural Bengal, vol. i. p. 234, 4th ed.

[60] I have several hundred notices as to the status of slaves in India during the last century. In 1761 the Select Committee of the Court of Directors 'particularly recommended' the Madras Government 'to procure as many slaves from the French Islands as possible.' Sel. Committee's Proceedings, Dec. 28, 1761. See also Nos. 219, 424, 616, and 732 of Long's Unpublished Records, Calc. 1869. Also, Selections from the Calcutta Gazettes of 17th June and 2d Dec. 1784, 1st Dec. 1785, 10th July 1786, 12th June 1788, etc. etc. Also, Buchanan's Mysore, Kanárá, and Malabar, i. 13, ii. 61, 67, 74, 92, 117, 146, 150–153, 174, 271, 275, 299, 397.

[61] Called Shágird-peshás, 'life-long learners,' or ghuláms, 'slaves.'

English officials. While nothing seemed more natural to the Indian mind than the practice of very poor people accepting domestic servitude for life in their native place, nothing could be more revolting to it than a sea-going trade in human flesh. One of our officers[62] has declared transportation across the sea 'to be as much dreaded in Orissa as death.' The Purí Roadstead was the principal place of their exportation, and many a frail craft with its shrieking freight was driven on shore on the Madras Coast.[63] Wretched footsore parties, rescued in Southern India by our officers, were passed northwards from one British Factory to another till they arrived at the Orissa Frontier, leaving a residue of sick and dying in the English hospitals *en route*.[64] At length the evil reached such a height, that the Madras Government had to level a thunderbolt in the shape of a Proclamation[65] against 'a practice so detrimental to the country, and injurious to the rights of humanity.' It further offered a reward of twenty pagodas for the liberation of each person discovered in this state of servitude. But neither this nor a similar Proclamation issued the year before by the Governor-General in Calcutta, and which offered a reward of £5 for each person delivered from slavery, could stop the 'inhuman and detestable traffic!'[66] In 1794 the slave-trade from Bengal had reached as far as St. Helena, and the Court of Directors found itself forced to take up the question.[67] Proclamations, rewards, and penal-

[62] Lt. Macpherson's Report on the Kandhs, Part vii. para. 87.

[63] *E.d.* Letter from the Clerk to the Committee of Police at Masulipatnam. G. R.

[64] Consultation of 5th July 1790. G. R.

[65] Dated Fort St. George, 8th March 1790.

[66] Dated 27th July 1789.

[67] Proclamation in the Calcutta Gazette, dated 11th September 1794. Sel. ii. Calcutta 1865.

ties remained alike ineffectual so long as the Marhattás held the sea-coast of Orissa. From the day we entered the Province this abomination also ceased. The memory of it has utterly passed away; and but for the original papers which I here cite in support of my statements, its existence at any time would now be denied.

The Province of Orissa which then passed under our care consisted geographically and politically of two distinct tracts. The rich Delta spread out its swamps and rice-fields from the mountains to the sea; the hill country stretched backwards into Central India. A separate series of difficulties beset our Administration in each, and at this day they are governed on a totally distinct plan. I propose first to set before the reader a view of the hill tracts, and then to proceed to the more complicated administrative history of the deltaic Districts.[68]

The Tributary States are a succession of ranges and wild highlands, covering 16,184 square miles, and rolling upwards into Central India. Three great rivers issue from the interior table-land, their courses forming three rich mountain valleys during their passage through the Tributary States. Of these valleys the southernmost is that of the Mahánadí; at some places closely hemmed into picturesque gorges by peaks on either side; at others spreading out into fertile plains laden with rice, and watered by a thousand mountain streams. At the Barmúl Pass, depicted in the Frontispiece of the first volume, the river winds round magnificently wooded hills, of 1500 to 2500 feet high. Crags and peaks of a solitary wild beauty overhang its channel, which at one

[68] I give a detailed account of the Tributary States and Districts in the Appendices, in which I have, for the sake of compactness, repeated some of the statements made here.

part is so narrow that the water rises seventy feet in time of flood. On the north of the Mahánadí the ranges tower into a lofty watershed, from 2000 to 2500 feet high, sloping down on the other side into the valley of the Bráhmaní. This river forms the second of the three great routes through the Tributary States, and from its northern bank the hills again roll upwards in magnificent ranges, ever more confused and wilder, till they culminate in the Malayagiri Peak, 3895 feet high. Their northern slopes supply countless feeders to the third valley, that of the Baitaraní river, from whose northern bank rise the almost unexplored mountains of Morbhanj, heaped one upon another in noble masses of rock from 3000 to nearly 4000 feet high. Almost everywhere throughout this wild region, which walls out the delta from the interior continent, the peaks are densely wooded to the summit, and except at the regular passes, inaccessible to beasts of burden.

The foregoing description of the mountains gives a sufficiently clear idea of the rivers. The southernmost, the Mahánadí, a noble stream varying during the rainy season from one to two miles in breadth, collects the drainage of 45,000 square miles, and in time of flood pours down one-third more water than the Ganges itself. Everywhere navigable throughout the Tributary States by flat-bottomed boats of about twenty-five tons burden, it affords a magnificent trade route into Central India. How our injudicious system of excise has practically defeated the facilities offered by nature, I shall afterwards show. Precious stones of different kinds are found in its bed, but during the dry season many a perplexing sandbank obstructs its channel. The boatmen, however, carry rakes and hoes, with which I have seen

them clear a narrow passage just sufficient to let their craft pass. The intermediate river of the Tributary States, the Bráhmaní, yields jasper and various other gems; but navigation by large boats is impossible from dangerous rocks, which, however, might easily be blasted. Both it and the third river, the Baitaraní, have only water for small canoes during summer; while in the rainy season they afford adequate trade routes for the rural and forest produce which the hillmen bring down to barter for salt and calico.

The inhabitants of this wild region form one of the ethnical curiosities of the world. They consist of the remnants of races, and exhibit the last compromises with fate to which the hunted and driven out peoples of the Indian highlands resort. I have, so far as the absence of any regular census permits me, given a detailed account of the population of the Tributary States in Appendix IV. The Hindu Uriyás form the wealthiest and the most important class. They inhabit the valleys, engross the cultivable land, and monopolize the trade of the country. But they exist as a foreign, although an overpowering nation, in the midst of nine fragmentary races of an earlier stock. These in their turn are divided by wide intervals of comparative antiquity, and by great differences as to the degree of misery and degradation which they have reached. Three of them still assert a nationality and a history which it is possible to trace. The Kols extend from the Orissa States two hundred miles northward to beyond Chhotá Nágpur, intermingled with Santáls and other hill tribes. Their central habitat lies far north of Orissa; and Colonel Dalton, the Commissioner of the Province which they chiefly inhabit, has now a work in the press, whose proof sheets convince

me that I can add nothing to his forthcoming Account of this race. On the south of the Orissa States, another remnant of an ancient people still preserves a national existence. The Savars or Sauras—for the name is written and pronounced in both ways—appear as the Suari of Pliny and the Sabaræ of Ptolemy.[69] Their principal settlements now lie among the mountainous background which rises from the Madras Coast, and run down from the Chilká Lake to the Godávarí river, 'a region two hundred miles in length, almost entirely unexplored.'[70] But from the notices of classical geographers at the beginning of our era, from the road-book of the Chinese Pilgrims in the mediæval centuries, and from the researches of British officers in our own time, it is clear that these Savars or Sauras form 'only a single branch of a widely extended tribe.'[71] The same people are found in Central India, in Gwalior, Márwár, and even as far as Southern Rájputaná. The truth is, that every new Account of an Indian District discloses the remnants of primitive races now isolated and broken into fragments, but who once occupied and ruled wide provinces.

It is with the Kandhs, the people lying between the Kols and the Savars, that an Account of the Orissa Tributary States has chiefly to deal. The three nations still preserve the general geographical position to each other which they occupied 1500 years ago.[72] But on

[69] *Vide* note 11 of Chapter v. vol. i. p. 175. The different forms of their name arise from the fact that *v* is pronounced *b* in Bengal, and is constantly softened into *au* and *u*.

[70] Lieutenant Macpherson's Report to the Chief Secretary to Government, Fort St. George, dated 21st June 1841, Part i. para. 15.

[71] General Cunningham's Ancient Geography of India, vol. i. 509.

[72] General Cunningham's Ancient Geography, i. 506–512. Carmichael's Vizagapatam.

each boundary of the intermediate tribe some intermingling has taken place, and Hindu colonists have occupied the best part of their primitive territories. Nevertheless the Kols still dwell in their ancient tableland to the north of the Orissa States, the Kandhs are still identified with the highland valleys of the Mahánadí, and the Savars retain the mountainous tracts stretching southward from that river to the Godávarí. In the Kandh country, of which I have here chiefly to treat, the few Kols and Savars who exist are looked upon as outsiders, and have generally sunk into an inferior class, exactly as the Kandhs themselves have lapsed into a low caste among the Hindu communities of the plains. Of such inferior races, a great variety survives in the Tributary States. Some of them have reached the lowest stage of human existence. In the State of Dhenkánal, for example, I found a race called Malhárs, who have no fixed abode, but lead a wandering life in the forest, lodging under trees, and earning a precarious livelihood by the barter of honey, wax, resin, and other jungle products for food. The Mahárájá had a party of wild jungle people brought in to me, among whom the women wore not an inch of any woven garment, but simply a number of strings round the waist, with a bunch of green leaves hanging down before and behind. In their own settlements the Kandhs regard themselves as much higher than these inferior races, whom in very primitive times they seem to have subdued, as the Hindus consider themselves above the Kandhs, or as we hold ourselves to be superior to the savages of the Pacific. The typical Kandh village to the south of Orissa consists of two streets,[78] one occupied by the

[78] Mr. Carmichael's Vizagapatam, p. 90, Madras 1869.

Kandhs themselves, the other by Doms, Páns, and other inferior and almost servile races, with whom they hold no intercourse, and who live by coarse handicrafts which they barter with the Kandhs for grain. In the headquarters of the Kandh race within the Orissa States, we shall afterwards see that the distinction is even more sharply maintained.

The Kandhs, therefore, who appear on the rich Orissa Delta as a class of landless day-labourers, the hewers of wood and clearers of jungle for the superior Hindu race, survive in the mountainous background as a distinct nationality, with a history, a religion, and a system of law and landed property of their own. When questioned as to their origin, some of the tribes declare that they were driven westwards from the lower Orissa country, others that they have been pushed eastwards from Central India.[74] In both cases they found refuge in the intermediate highlands which now form the Orissa Tributary States, and the two legends alike point to advancing waves of Hindu colonization, the one from Central India, the other from the Orissa Delta. The race long enjoyed as its headquarters the State of Bod, which till within the last four generations[75] embraced both banks of the Mahánadí, and enabled its masters to levy tolls on the traffic of that river. It now extends for sixty-five miles along the southern bank, and is divided into two parts, the more open and fertile of which is ruled by a Hindu Rájá, and occupied by Hindu husbandmen. The Kandh

[74] Lieutenant Macpherson's Report. Letter from Mr. Ravenshaw, the present Commissioner of Orissa, to me, dated 15th January 1871. See Appendix IV.

[75] Lieutenant Macpherson's Report, Part i. para. 72 (*i.e. three* generations ago in 1841). Bod formerly included the State of Athmallik, on the north of the Mahánadí.

Settlements lie deeper among the hills, scattered over a broken plateau intersected by low ridges, the last refuge of the race. Their villages are divided from each other by rugged peaks and dense forests, but a regular system of government on the aboriginal plan is still maintained, the hamlets being distributed into *mutas*, or counties, each muta under the supervision of its own chief. Throughout this wild tract they claim an indefeasible right in the soil. They assert that the whole State of Bod was once theirs, and that they have been pushed back into the recesses of the hills by unscrupulous invaders.

Thirty years ago this people formed one of the most difficult problems with which a Christian Government was ever called upon to deal. Up to that time we had not come into contact with them, nor were we in any way responsible for their conduct. We knew that they and the Savars inhabited the mountainous background down the coast, 'three hundred miles in length, and from fifty to a hundred in breadth, between the Mahánadí and the Godávarí.' The officer best acquainted with it described it as a tract 'of forest, swamp and mountain fastnesses, interspersed with open and productive valleys, and from its climate, habitable with safety by strangers only during a few months of the year.'[76] The great Hindu Principalities of Gumsar and Bod lay between us and the wild tribes beyond, and shut us out from any communication with them. But in 1835 the Gumsar Rájá fell into arrears of Tribute, and our measures to enforce our just claims were followed by his rebellion and flight into the Kandh country.[77] The insurrection ended in our attaching his territory, and this territory made us the

[76] Macpherson's Report, Part vii. para. 30.
[77] *Idem*, Part vii. paras. 5 et seq.

feudal suzerain of the Kandh highlands beyond. We found that our new subjects, whose fidelity to their late chief, even while involving severe measures, had won our respect, practised the abomination of human sacrifice both in their public and their private rites. The measures by which we suppressed this custom I shall afterwards detail. But before attempting coercive measures, we deputed an officer to ascertain the character of the people, with the real facts of the case; and his Report[78] forms one of the most admirable and most interesting official documents to be found in the archives of any Government.

This Report still remains the great storehouse of facts with regard to the Kandhs in their primitive state. The following brief description is chiefly taken from it, with such new light as the District Accounts of Vizagapatam and of the Central Provinces have within the last two years shed upon the race. In the interior table-land the Kandhs appear as a restless, wandering caste, who seldom remain long in the same spot, and 'the greater part of whom pay nothing to Government, and have but little intercourse with its officers.'[79] But in the headquarters of their race, Lieutenant Macpherson, when he visited them thirty years ago, found a free and spirited people, living under a semi-patriarchal, semi-feudal government, with a strongly developed nationality of their own. The word Kandh, like Mali and the tribal names of other hill tribes, means in the aboriginal languages 'mountaineer.'[80] As the Hindu Rájás drove

[78] 'Upon the Kandhs of the Districts of Ganjám and Cattack, signed by S. C. Macpherson, Lieut. Assistant Surveyor-General, dated Madras, 21st June 1841,' and printed in Calcutta, folio, 1842.

[79] Central Provinces Gazetteer, p. 239, Nágpur 1870.

[80] Macpherson's Report, Part i. para. 42; and Mr. Carmichael's Vizagapatam, p. 90, Madras 1869.

them deeper into the recesses of the hills, the tribe split up into three sections. The weaker of them remained as a landless low-caste in the new Hindu Principalities; another class obtained military tenures from the conquerors, and formed a peasant militia such as that which again and again beat back the wave of Musalmán conquest from Orissa; the third wrung from their Hindu neighbours the position and the privileges of free allies. A system of military aids, homage, investiture, and other feudal incidents[81] sprang up, as the superior civilisation of the Hindu Prince more and more exerted its influence on the wild tribes. There is at least this to be said for the Hindus throughout India, that everywhere they appear as bringing in a more humane government and a more enlightened religion than that of the people who preceded them, and whom they ousted from the plains.

Among the Kandhs the Principle of Family remains supreme. Hamlets certainly exist, but the social nexus is not that of the village, as among the Hindus, but that of the household. The three links in their organization are the family, the sept, and the tribe. Theoretically, each tribe springs from a common father, and it is governed by a patriarch who represents the common ancestor. Each sept or branch of a tribe consists of a number of families claiming the same progenitor, while in each family the absolute authority rests with the house-father. Thus the sons have no property during their father's lifetime; and all the male children, with their wives and descendants, continue to share the father's meal, prepared by the common mother.[82] As the tribes form a federal group under a federal patriarch, and as

[81] Well described in Macpherson's Report, Part i. paras. 64–84.

[82] Macpherson's Report, Part ii. paras. 6–36; Part v. paras. 1 3.

the septs or tribal branches form a tribe-cluster under a tribal patriarch, so the individual families unite into little village communities under a village father or head. Each of these three stages of organization has its own Representative Assembly; the Federal Council being chosen from the tribal patriarchs, the Tribe-Assembly from the branch or sept patriarchs, and the Village Elders from the house-fathers.[83] In short, to use the words of the officer who knew them best, 'the outward order of Kandh society, all its conditions, its texture, and its colouring, necessarily derive their distinctive character chiefly from the ideas which produce, or which spring from, this remarkable system of family life.'[84]

Side by side with this Principle of Family, we discern another motive power at work in the social structure of the Kandhs. The patriarchal authority forms the basis of the whole, but it is modified by an elective or representative element. If a people could make sure that its natural hereditary head should be always the man best fitted for the office of leader, the hereditary principle would reign supreme among mankind. But unhappily the natural chief of a family or tribe has often none of the qualifications required for a ruler. The Kandhs get rid of the difficulty by an ingenious compromise, which makes the patriarchal office hereditary as to family, but elective as to person. The eldest son of the patriarchal family has a natural title to the post; but if his character should unfit him for its duties, he makes way for a younger brother or an uncle. The two essentials for the patriarchal office, therefore, are personal fitness and birth within the prescribed family. Nothing like a formal election takes

[83] Macpherson's Report, Part ii. paras. 6–49.
[84] *Idem*, Part v. para. 3.

place. If the eldest son be deemed unsuitable, he is silently passed over as if by family arrangement, and the business managed rather by exclusion than by selection.

The Kandh social organization is therefore regulated by the harmonious action of two principles, which in other parts of the world we are accustomed to see widely dissevered. The Principle of Family modified and corrected by the Elective Principle, that is to say, hereditary title strengthened by ascertained personal fitness for the work, gives a force to the patriarchal authority such as few civilised Governments possess. The Kandh patriarch,[85] whether of a tribe, a sept, or a village, is the Father, the Magistrate, and the High Priest of his people. The Principle of Family and the Principle of Election combine with religious feeling to render his office sacred. He receives no pay, nor any official privileges other than the respect and veneration which belong to him as leader, father, and priest. He 'is simply the head of a family of which every member is of equal rank—the first amongst equals. He is in no respect raised above the community, whose interests, associations, traditions, and manner of life he shares. No one ministers to his wants. He has no trace of state, however rude; no separate residence or stronghold; no retainers; no property save his ancestral fields, by the cultivation of which he lives. He receives neither tribute nor aid, save perhaps an occasional harvest offering of goodwill. The enjoyment of the place of dignity at every public and private festival may be reckoned, as in the case of the Homeric Kings, the most valuable,

[85] *Abáya*, literally father, from the root *abá*, which appears in various forms, such as *avá*, *appá*, *abo*, *ap*, among the aboriginal tribes of many Provinces of India from Bhuṭán to the Karnatic.

as it is amongst the most agreeable incidents of his situation.

'The patriarch of a tribe, whatever may be the degree of his personal authority, undertakes no measures except in emergency, and transacts no affairs without the assistance and sanction of the Abáyas (Heads of Septs or branches of the tribe), or of the assembled Society. He has charge of the relations of his tribe with the neighbouring tribes and principalities. He leads in war, and always accompanies the Military Aids rendered to the Hindu chiefs. At home he is the protector of public order, and the arbiter of private wrongs; conciliating feuds and dispensing justice, but depending for obedience to his decisions entirely upon his personal influence and the authority of his assessors. He convenes a Council of the Abáyas, or of the whole tribe, as usage may prescribe, either for deliberative or judicial purposes. He, moreover, discharges the local duties of Patriarch of his family subdivision (Sept), and Head of his Village.'[86]

The Kandh Patriarch, whether of a tribe, a sept, or a village, administered a well-defined system of Public and Domestic Law. The Kandh theory of existence was, that a state of war may be lawfully presumed against all tribes and nations with whom no express agreement to the contrary exists. Even between tribes of the same federal cluster, peace was a matter of stipulation or contract; and 'hence, while within each tribe order and security prevail, beyond it all is discord and confusion. In a word, the practical spirit of their intercourse is the result of a conflict between the anti-social spirit of independence which universally characterizes a rude people, and the love of security and enjoyment which necessarily

[86] Macpherson's Report, Part ii. paras. 29, 30.

attends the hereditary possession of competence and freedom; while, upon the whole, the latter influence predominates.'[87]

This aggressive system of Public Law had its counterpart in the private judicial procedure of Blood-Revenge. In case of murder, the duty fell upon the male kindred within certain degrees of propinquity, not very strictly determined. The custom of Blood-Revenge was, however, modified by the principle of money compensation,—a practice that enables the friends on both sides to step in and to put a limit to hereditary retaliation. Offences against the person, such as wounding or grievous hurt, might be made amends for by compensation in property; and the sufferer, whether his injuries were severe or not, had a right to live daintily at the cost of his assailant, until perfectly recovered from his hurts. No payment could wipe out the stain of adultery. The injured husband was bound to put to death an adulterer caught in the act, and to send back his wife to her father's house.

In Offences against Property, the principle of restitution reigned supreme. A stolen article must be returned, or its equivalent must be paid; the injured party could inflict no further penalty. So mild a punishment might seem to be a direct encouragement of theft. But this leniency extended only to the first offence. A repetition of the crime was dealt with not as an offence against property, or against the individual sufferer, but as a wrong perpetrated upon the whole society. No compensation could expiate it, and the criminal was expelled without mercy from his tribe. Generally speaking, offences against property among the Kandhs take one

[87] Macpherson's Report, Part ii. paras. 6–8.

of two forms; either the theft of agricultural produce or wrongful occupation of the soil. Questions of civil right often mingle with such cases, a claimant merely anticipating the decision of the Village Head by seizing the disputed land or appropriating its produce. It is this consideration which probably led the Kandhs to regard the crime of theft and ouster as so venial. The offender had to restore stolen agricultural produce at once; and when it could not be recovered, his land was made over to the injured party until its produce made good the theft. The Kandhs, however, did not leave the offender's family to starve, but yearly set aside one-half of the crop on the attached fields for their subsistence. The abundance of waste land rendered wrongful ouster, or forcible occupation of the soil, a venial offence. It involved no further punishment than its simple restoration to the party to whom it might be adjudged due.

Priority of occupation forms the sole Origin of Right. No complicated tenures exist, every man tilling his own field and acknowledging no landlord. But even so simple a system requires general principles to regulate it, and gives rise to conflicting claims. In the Kandh land-law, as in their political organization, we see the Principle of Family as the basis of the structure, but that principle modified by personal considerations. The right to the soil arises from priority of occupation by the family or tribe, and within the tribe from priority of cultivation by the individual. Kandh tillage still retains some of the migratory features common to the nomadic husbandry of the aboriginal tribes. When a piece of land shows signs of exhaustion they abandon it, and in their native Settlements change their villages once in about fourteen years. The question of waste land there-

fore forms an important one. Where the population begins to press rather heavily on the territory of the tribe, they parcel out the waste lands for pasturage among the various hamlets, and thus exhibit the first model of the Hindu village of the plains. But as 'not an eighth part' of the Kandh territory was 'appropriated by individuals'[88] in 1841, the waste lands had scarcely any value, and mostly remained unappropriated among the hamlets, and common to the tribe. Generally speaking, a Kandh might take possession of any waste lands within his tribal territory, by bringing it under tillage.

If the Origin of Rights among the Kandhs is simple, their transfer is easy. The seller makes known his purpose to the Patriarch of the sept or tribal branch, 'not to obtain his sanction, but to give publicity to his intentions.'[89] He then leads the buyer to the hamlet where the field lies, and calling together five husbandmen of the village, he delivers a handful of the earth to the purchaser, and publicly receives part of the price. At the same moment he invokes the Village God as a witness that he has parted for ever with the field, and so the transaction ends. Landed disputes are adjudicated by a Council of Elders, who hear both parties and examine witnesses. The favourite mode of decision, however, is by judicial ordeal. The Kandhs believe that rice steeped in the blood of a sheep killed in the name of the earth-god, will, if swallowed by the litigants, slay the perjured party on the spot. A lump of the disputed soil, when kneaded into clay, will produce the same desirable effect. The old chivalrous custom of the defendant purging himself upon oath, still flourishes among the

[88] Macpherson's Report, Part v. para. 4.
[89] *Idem*, Part iv. para. 19.

Kandhs. The commonest form is to take the oath upon the skin of a tiger, from which animal sure destruction will inevitably befall the false swearer. When a tiger wounds or kills a Kandh, his whole family becomes out-caste; but the *Domná* or aboriginal priest can restore them to their status, by taking away all the property in the house of the unfortunate man who has thus visibly incurred the wrath of the Kandh deities.[90] If the oath be taken upon a lizard's skin, scaliness will be the perjured party's lot; if upon an ant-hill, he will fall away into a heap of dust. Boiling water, hot oil, and heated iron, also form favourite ordeals. The litigants pay no Court fees, but the losing party has to liberally entertain the members of the tribunal with rice, flesh, and liquor.

The Law of Inheritance assumes that no person ought to possess land who cannot with his own right hand defend it. Agricultural stock and landed property descend exclusively in the male line, the eldest son generally receiving the largest share, but among some tribes dividing equally with his brethren. On failure of sons, the land and homestead-stock go to the father's brothers, as the Kandh Salic Law deems women incapable of holding real property or ought pertaining to it. On failure of heirs-male, the land passes to the village, and is parcelled out to its families. The daughters divide equally among themselves the personal ornaments, household furniture, money, and all moveable property of their deceased father, and have a right to a liberal maintenance from their brothers, while they remain spinsters, with the expenses of their marriage ceremony when they enter on that state.[91]

[90] Enclosure with letter from Superintendent of Tributary States to me, dated 13th April 1870.

[91] Macpherson's Report, Part iv. paras. 11-14.

The people who live under this simple law and patriarchal Government, exhibit primitive virtues which more civilised nations may well envy. 'They have the easy bearing of men unconscious of inferiority, and rarely employ expressions of courtesy. In salutation they raise the hand perpendicularly above the head; in meeting on the road, the younger person says, "I am on my way;" the elder replies, "Go on."' While willingly copying the nobler features of the Hindu civilisation and religion, they assert their superiority as a people to the more advanced race. 'Their most common boasts are, that they reverence their fathers and mothers; that they are men of one word; and that the Kandhs are one as a race, while the Hindus are endlessly subdivided.' Our officers who had to conquer them bear witness to their virtues. 'In superiority to physical pain the Kandhs are surpassed by no people. In a period of suffering rarely paralleled, during which the population wasted for two months beneath famine, disease, and the sword, no single Kandh was found to falter in his devotion to the common cause; and when at length the fathers of the tribe were betrayed and condemned to die, with what admirable courage, with what affecting resignation and simple dignity, did they meet an ignominious fate on the sites of their ruined homesteads!'[92] One of our prisoners tore out his tongue by the roots, and died, rather than say anything that might involve his clan. Another 'sternly refused food, and perished on the fourth day.' Here is the picture of a careworn but still vigorous Kandh Patriarch in his fifty-seventh year: 'In person he is somewhat below the middle size, according to the Hindu standard; of spare habit, and by no means robustly formed. His physiog-

[92] *Idem*, Part v. para. 30.

nomy is spirited, and, when excited, intellectual; but with a predominating expression of benevolence. His features are regular, sufficiently bold for expression, but by no means striking, and not strongly marked by the peculiarities of his race. His manner is animated, perfectly self-possessed, and very pleasing. He might pass for a well-bred Bráhman of Orissa.'[93]

The three great incidents of human life—birth, marriage, and death—the Kandh delights to surround with ceremonies and solemnities all his own. The expectant mother invokes the village deity for her future offspring; and should any delay in her delivery take place, the priest leads her out to the meeting of two springs, sprinkles her with water, and makes an offering to the God of Births. The choice of a name engrosses the anxious thoughts of the parents. The priest drops grains of rice into water, uttering, as each grain falls, the name of one of the family ancestors. The motions of the various seeds as they sink to the bottom of the vessel, enable him to declare which forefather has reappeared upon earth in the new-born babe. On the seventh day after the birth the parents give a great dinner to the priest and the whole village, with unlimited liquor; and so the Birth Ceremonies end. In marriage, the necessity for maintaining the manliness of the race makes the Kandhs religiously observe the restrictions of consanguinity. No union can take place between kinsmen, or even between members of the same tribe.[94] Intermarriage goes on independently of peace and war, the belligerent clans suspending their conflict in order to partake together of the wedding feast, and renewing the

[93] Macpherson's Report, Part v. para. 37.
[94] *Idem*, Part v. para. 43.

fight next day with perfect ferocity and good temper. A Kandh boy marries when he reaches his tenth or twelfth year. His wife is usually about four years older, or about fifteen. The bridegroom's father pays a price for the bride, and she remains almost as a servant in her father-in-law's house, until her boy-husband reaches a fit age for the consummation of the marriage, and for bearing his own part in the world.

The betrothal consists of a procession, a libation to the gods, and a feast. The bridegroom's father assembles his family and friends, and carries a supply of rice and liquor to the girl's house. The priest stands in readiness to receive him, tastes the bowl, and pours out an offering to the gods. The parents then join hands, and the espousals are complete. The wedding itself is simply an abduction in the middle of a feast. All the kinsmen assemble at the dwelling of the bride, or if she dwells at a distance, in some place near the bridegroom's house, and after an ample supper, drink and dance the night away. The priest binds a yellow thread round the necks of the parties, and sprinkles their faces with turmeric water in the shed in which the family beats out its rice. The Hindus of the plains have adopted these aboriginal ceremonies into their own marriage rite, the yellow thread being tied round the waists of the boy and girl, and turmeric paste rubbed into their skin. Towards morning, the girl's uncle lifts her on his shoulders, while one of the boy's uncles does the same thing with him. After the bride and bridegroom have thus been carried aloft among the dancers, their bearers suddenly exchange burdens, and the boy's uncle makes off with the bride. In a moment the festivities cease. The kinsmen range themselves into two hostile tribes, the girl's friends trying to

recapture the bride, the boy's to cover her flight. The two clans carry the fight to great lengths, and the conflict exhibits in its rude original form a custom which the Hindu conquerors of India admitted as one of their eight recognised forms of marriage. In their law-books it still bears the name of *Rákshasa*, the generic appellation in Sanscrit for the aboriginal tribes, such as the Kandhs. Among the latter, after the struggle is over, the priest attends the bride and bridegroom home, in order to avert by a charm the evil which would threaten their married life, in case their path should cross a running brook.

'In the superior age of the bride,' writes Macpherson, 'is seen a proof of the supremacy of the paternal authority amongst this singular people. The parents obtain the wives of their sons during their boyhood, as very valuable domestic servants, and their selections are avowedly made with a view to utility in this character.'[96]

Women hold a high position among the Kandhs. The wife naturally exercises a considerable influence from the first upon her boy-husband; and notwithstanding the payment made by the father of the bridegroom, the girl does not in any sense become the property of the husband, or pass *in manu*, as among the Romans. Even if pregnant, she can return to her father's house within six months after the marriage, on the articles which had been paid for her being restored. If childless, she can at any time quit her husband, and re-enter her own family. In no case can the husband forcibly reclaim her, but a wife separated on any grounds whatsoever from her husband cannot marry again. Adultery operates *ipso facto* as a divorce of the faithless wife. But so long as a wife

[96] Macpherson's Report, Part v. para. 55.

remains true to her husband, he cannot contract a second marriage, or even keep a concubine, without his wife's consent. When such permission is obtained, the children of the concubine receive among some tribes an equal treatment with the legitimate sons; among others, they only inherit a half share of the paternal property. The Kandhs faithfully observe the marriage tie; adultery is seldom heard of: the wife serves her husband while he eats; helps him in the homestead; and when out-door labour presses, she binds her baby around her waist, and goes forth with him to the field.

The last incident of human life remains. On the death of a common Kandh, his kinsmen quickly burn the body, and on the tenth day give a drinking feast to the hamlet. But when a Patriarch dies, his bereaved people spread over the country with gongs and drums, and summon all Village and Tribal Heads. They place the body on a lofty timber pile, with a flagstaff and banner rising from its midst. The clothes, arms, and household vessels of the dead Patriarch are laid out on a rice bag near to the structure. The chief mourner with averted face applies the torch, and all the kinsmen gyrate in a funeral dance around the pyre until the flagstaff falls wholly burned. They then parcel out among the Sept Patriarchs the dead man's goods which had been exposed upon the rice bag, and during the next nine days the family meet together at intervals and renew their solemn dance around the ashes. On the tenth day the whole tribe with its families and septs assemble, and choose or acknowledge a new Patriarch, who is generally the eldest son of the late chief.

The two great virtues of the Kandhs are their fidelity and their valour. From the first springs an ex-

cessive hospitality which knows no bounds, and which leads them into drunkenness and feuds. 'For the safety of a guest,' runs the Kandh proverb, 'life and honour are pledged; he is to be considered before a child.' 'Every stranger is an invited guest.'[96] As soon as a traveller enters a village, the heads of families respectfully solicit him to share their meal. He may remain as long as he chooses; 'a guest can never be turned away.' Fugitives from the field of battle, and even escaped criminals, must be hospitably received. 'If a man can make his way by any means into the house of his enemy, it is a case of Refuge, and he cannot be touched, even although his life has been forfeited to his involuntary host by the law of Blood-Revenge.' A man belonging to one of the miserable low castes who are attached to the Kandh hamlets, killed the son of the village Patriarch, and fled. Two years afterwards he suddenly rushed one night into the house of the bereaved father. The indignant Patriarch with difficulty held his hand from the trembling wretch, and convened a Council of the Tribe to know how he might lawfully take revenge. But the Assembly decided that, however grievously the refugee had wronged his host, he was now his guest, and must be kept by him in comfort, and unharmed. Among some tribes, however, an enemy who thus tries to evade the law of Blood-Revenge does not escape. The family quit the house; and although they will not hurt him so long as he remains under what was once their roof, yet they send him no food, and the moment he crosses the threshold in quest of it, they fall upon him and slay him. But a case of this sort seldom occurs, and the Kandhs regard it, even when put in force against the murderer of a son, as unjustifiable.

[96] Macpherson's Report, Part iv. para. 18.

Sometimes a whole tribe forces itself upon the hospitality of another, and in one well-known case a fugitive clan was thus maintained by another for an entire year. A feast had given rise to a bloody feud, which ended in the tribe being driven out from their lands, and for twelve months they depended entirely upon the hospitality of their involuntary hosts. At the end of that time the clan which had seized their territory took pity upon them, and relaxed their cordon of outposts, so that the expelled tribe found re-entrance into one of their old villages. Here they immediately claimed the rights of hospitality; their enemies, who a year before had ousted them, were forced to admit the claim, and either to support them as guests, or to restore to them the lands which they had seized. In the end they adopted the latter course; and in this way the laws of hospitality act as a check alike upon the custom of Blood-Revenge, and upon the Kandh theory of chronic war. One creature alone among the human race can claim no shelter—the unhappy *Meriah*, or victim set apart for human sacrifice.

Their fidelity to their chiefs and to their allies knows no limit. It was this virtue which first brought us into collision with them. The Gumsar Rájá, when he rebelled against us in 1835, fell back upon the Kandh settlements, and on his death-bed the clans pledged their word for the safety of his family. At first they showed rather a friendly disposition to our advancing troops; but when they learned our terms, they preferred devastation and death to perfidy. They refused 'with the most admirable constancy' to give up their guests. 'The country was laid utterly desolate. The population was unceasingly pursued by our troops;'[97] and it was only

[97] Report, Part vii. para. 14.

the treachery of the Hindu borderers that, by betraying them into our hands, brought the sickening struggle to a close.

Their bravery in battle well supports this fidelity to their chiefs. The two honourable professions among the Kandhs—indeed, the sole occupation of a freeborn hill-man—are husbandry and war. Each man has his own little estate, and his heart beats with the independence which, all over the world, nerves the arm of the free-holder and the landowning yeoman. Every Kandh tills his own land, and heartily despises all who engage in any occupation save agriculture and war. As among the earlier Hindus, whose village system, as we shall afterwards see, was to a large extent based upon the previous aboriginal model, each Kandh hamlet has certain servile castes belonging to it. A few families of hereditary weavers,[98] of hereditary ironsmiths,[99] of hereditary potters,[100] of hereditary herdsmen,[101] and of hereditary distillers,[102] hang about the outskirts of the village, or live in a separate row of huts assigned to them by the Kandh ruling caste. The despised classes have from time immemorial formed an essential element in the aboriginal village community. No Kandh could engage in the work which they perform without degradation. Nor can a Kandh eat food prepared by their hands. The most important of them, the Pán or weaver caste, carry the summons to the council or to war, supply the music at ceremonies, and act in many matters as hereditary village servants. One of their duties points to their connection with that very ancient form of worship which enters in different degrees alike into the Kandh and into the Hindu

[98] Páns or Panwás. [99] Lohárs. [100] Kumbhárs. [101] Gaurs.
[102] Sundis or Sunris, practically pronounced by English mouths Súris.

religion, and which both of these races seem to have adopted from a still more primitive people. On certain families of the servile weaver caste falls the hereditary duty of providing human victims for the Earth-God. None of the attached classes can hold land, nor can any industry raise them to an equality with the superior race. On the other hand, the Kandhs treat them with kindness, never forgetting a portion for them at a feast, and resenting any injury done to them, as if it had been inflicted upon their own property. They generally maintain their blood pure, and appear to be distinct ethnical remnants of peoples whom the Kandhs subdued in very ancient times, and whom they have used ever tince as servile castes. Living as they do as landless day-labourers or artisans on the outskirts alike of the Kandh and of the Hindu communities, they keep up a communication between the two superior races, and generally speak both the Kandh and the Uriya tongues.

From his earliest boyhood, the Kandh learns to regard himself as a freeman sprung from a dominant race, with a serf population below him to do all ignoble work. His business is agriculture; his pastime, war. During seed-time and harvest he rises at daybreak, and eats a hearty meal of a sort of pulse[108] porridge, boiled up with herbs and goat's or swine's flesh. Before the dew has risen from the land he drives his oxen a-field, and toils without a pause till three in the afternoon. If engaged in the severer sorts of work, such as clearing jungle, he rests at mid-day and eats his dinner. But when following the plough he works right on till the afternoon, when he bathes in the nearest stream, and at evening returns home to another hearty mess of thick

[108] Mug-rággi.

rich soup, with the addition of the liquor of tobacco.[104] In choosing the site of his habitation, the Kandh displays great taste. His village lies embedded in a leafy grove, or at the foot of finely-wooded hills, or crowns some little green knoll in the valleys, well raised above the flood-level. The hamlet, as already mentioned, consists of two rows of houses, forming a broad curved street, and closed at both ends by a strong wooden barrier. The northern Kandh settlements, however, do not adhere to this plan. But almost everywhere the Patriarch has his house in the very centre of the hamlet, close to the cotton tree which the priest plants and dedicates to the village god as the first necessary act in building a hamlet. The low castes properly live at the extremity of the street, but in some cases erect their miserable clusters of sheds outside it. Thirty years ago a true Kandh husbandman knew nothing about money, and detested trade of every sort. Even the primitive shell currency had not reached his village; and instead of a metal coinage, he reckoned the value of articles in '*lives.*' As these '*lives*' might be either sheep or oxen, or even inanimate articles, such as rice or pease, any traffic except by actual barter involved very complicated calculations among the Kandhs.

The Kandh intermits his field-labour by frequent predatory incursions and wars. About the average height of the Hindus, his clean and boldly-developed muscles, fleet foot, expanded forehead, and full but not thick lips, present a type of strength, intelligence, and determination, blended with good humour, which make him an agreeable companion in peace and a formidable enemy in war.[105] He never asks for quarter, and adorns

[104] Macpherson's Report, Part v. para. 12.
[105] *Idem*, Part v. para. 66 et seq.

himself for battle as for a feast, plaiting his hair into a flat circle on the right side of the head, and fixing into it a towering plume of feathers. The Patriarch or Tribal Assembly sends out swift messengers from glen to glen, bearing an arrow as the summons to war. Before engaging, each side records a vow of a human victim to the Earth-Deity[106] if he gives victory, and implores the aid of the God of War[107] by the blood of goats and fowls poured out in his sacred grove and on the field of battle. A Kandh fight resembles in many respects the listed combats of mediæval chivalry, such as Sir Walter Scott has described in the thirty-fourth Chapter of the 'Fair Maid of Perth.' The most approved form is to go on fighting day after day till one party or the other is absolutely exterminated.

An eye-witness describes a conflict which lasted three days, the challenge being renewed every morning by throwing down a piece of bloody cloth upon the battle-field. Such a fight yields a pleasurable excitement not only to the warriors themselves, but to both their villages. The women and old men past bearing arms stood close behind the combatants during the conflict, handing them pots of water and cooked food, with much good advice as to the conduct of the fight. When the first man fell, all rushed to dip their axes in his blood, and hacked the body in pieces; while the first man who slew his enemy without getting a wound himself, hewed off the right arm from the corpse, and ran with it to the priest among the non-combatants in the rear, as an offering to the God of War. Before evening a great heap of right arms had thus accumulated on each rear,—one side having lost sixty men and the other

[106] Berá Penu. [107] Lohá Penu.

thirty, besides at least as many more mortally wounded, as the result of the first day's pastime. The Kandh uses a curiously curved sword with singular effect and dexterity, besides the two-handed axe, a bow and arrows, and a sling. He disdains any shield, but guards with the handle of his axe. His favourite bowshot is a sort of ricochet, the arrow touching the ground with its heel 'at a short distance from its object, which it strikes in rising, below the line of vision.'[108] The Kandh never claims the victory as the reward of his personal valour, but invariably and with perfect good faith ascribes it to the favour of his god.

The single vice of the Kandhs is drunkenness. Their cheap liquor, made from the *muhwah* flower, plays a conspicuous part at every feast, and, as among the hillmen of old Thessaly, often turns good fellowship into deadly war. But the Orissa mountaineer pays small heed to the lesson which the brawls of the Centaurs and Lapithae, *super mero debellata*, were supposed to teach. No event of his life, no public ceremony in his village, is complete without intoxication. The women alone refrain from the cup, merely tasting it as a compliment to the company; and while drunkenness is held to be a laudable custom among the men, in a woman it is uncommon, and would be deemed disgraceful. A traveller, in passing through the Kandh country at a season of periodical intoxication when the *muhwah* flower blows, found the Districts 'covered with frantic or senseless groups of men, but no women appeared in the least intoxicated.'[109] The same eye-witness thus sums up the character of the Kandh race:—'A passionate love of

[108] Macpherson's Report, Part v. para. 72.
[109] *Idem*, Part v. para. 58.

liberty, devotion to chiefs, and unconquerable resolution. They are, besides, faithful to friends, brave, hospitable, and laborious. Their vices, upon the other hand, are the indulgence of revenge, and occasionally of brutal passion. Drunkenness is universal; the habit of plunder exists in one or two small Districts alone.'[110]

The religion of the Kandhs is essentially one of blood. Gods many and terrible dwell upon the earth and under the earth, in the waters and in the sky, each and all of whom must be propitiated by victims. As the Kandh theory of human existence is a normal state of war, broken at intervals by expressly stipulated truces, so their conception of the nature of God is one of chronic hostility to mankind, mitigated at intervals by the outpouring of blood. Their religion exhibits the transition stage between the rude worship of the primitive races of India, and that composite structure of Aryan beliefs and aboriginal rites of which modern Hinduism is made up. Their Pantheon embraces one set of deities unmistakeably aboriginal, a second class of mixed or doubtful origin, and a third, which in its present form they have unquestionably derived from the Hindus. The first class, or Race-Gods, consist of fourteen great deities[111] who dwell in the Kandh Country, and preside over the fortunes of the tribes. Of these the three chief are the Earth-God, the Iron-God (or God of War), and the Village Deity. Next

[110] Macpherson's Report, Part v. para. 80.

[111] (1) Berá Penu, the Earth-God; (2) Lohá Penu, the Iron-God, or God of War; (3) Nádzu Penu, the Village Deity; (4) Beyelá Penu, the Sun-God, and Dánzu Penu, the Moon-God; (5) Sande Penu, the God of Boundaries; (6) Jugá Penu, the God of Small-Pox; (7) Soru Penu, the Hill-God; (8) Jori Penu, the God of Streams; (9) Gassá Penu, the Forest-God; (10) Mundá Penu, the Tank-God; (11) Sugu Penu, or Sidroju Penu, the God of Fountains; (12) Pidzu Penu, the God of Rain; (13) Pilámu Penu, the God of Hunting; and (14) Gári Penu, the God of Births.

to them rank the Sun-God, the God of Boundaries, the Deities of Streams, Forests, Tanks, Fountains, and Rain. The God of Hunting has also a place, with the God of Births, and the terrible Deity of the Small-Pox. Eleven local or minor divinities follow,[112] some of whom seem to represent the worship of those still earlier races whom the Kandhs reduced to servile castes. The chief of these, literally The Great Father God,[113] has as his sole symbol a stone smeared with turmeric under some lofty forest tree. The jungle people declare that these rude blocks mark the place where the deity has from time to time issued from, or returned into, the earth. Another[114] is represented by a mysterious piece of some unknown substance, neither gold, nor silver, nor wood, nor iron, nor stone, nor any other material named upon earth. Unhappily, when one of our officers reached the temple and wanted to see it, the priest was away at a distance, and had carried with him the key. A third[115] of the Dii Minores seems to represent what may be called the worship of the *status quo*. Once a year the clans assemble, and with copious outpouring of blood upon a lofty mountain, implore the god that they may remain exactly in the state of their forefathers, and that their children after them may live exactly as themselves.[116] Another[117] of these lesser deities presents the ancient type of the God of Destruction, whose worship formed the first national creed of the Hindu monarchs of Orissa on the expulsion of the strictly Buddhist Dynasty. The purer Aryan conception of the Godhead enables the Hindu to

[112] (1) Pitábaldi, (2) Bandri Penu, (3) Báhman Penu, (4) Báhmundi Penu, (5) Dungari Penu, (6) Singá Penu, (7) Damosinghiáni, (8) Patarghar, (9) Pinjái, (10) Kankali, and (11) Balindá Silendá.

[113] Pitábaldi. [114] Bandri Penu. [115] Dungari Penu.

[116] Macpherson's Report, Part vi. para. 74. [117] Singá Penu.

ennoble any aboriginal belief which he may borrow; and the God of Destruction in Bráhmanical hands stands forth also as the God of Reconstruction, Death and Life being but alternate forms of existence. Among the Kandhs he is simply the Tiger-God who kills and wastes. He rose from the earth in the form of a piece of iron, the metal of war among the Kandhs. The tree under which his rude symbol is placed, inevitably dies. If it is laid in a stream, the water dries up. His priest can hope but for four years more of life after he enters his service, but dare not, under still more awful penalties, decline the fatal office. One of our Musalmán troopers scornfully pricked the nose of this Tiger-God with a bayonet. 'Blood,' say the Kandhs, 'flowed from the wounds, and a pestilence wasted the English camp.' It may readily be supposed that a race accustomed to the terrors of such a Deity, would with fear and trembling adopt the Hindu Goddess of Destruction,[118] with her appalling rites. She, in fact, was long the sole representative of the third class of deities among the Kandhs, namely those imported from the Hindu Pantheon. On the other hand, there can be little doubt that the ancient Bráhmans borrowed her worship from the aboriginal tribes, and we thus see the races of Orissa mutually encouraging each other in a worship of terror during at least 1400 years.[119]

As the Kandh Pantheon consists of native and of imported deities, so their priesthood is composed partly of aboriginal and partly of Hindu priests. In primitive times, each god had certain families in every tribe set apart for his worship; but now-a-days, with the exception of the ministers of the Chief God, no hereditary priest-

[118] Kálí.

[119] From the accession of the Lion-Line or Sivaite Dynasty in 474 A.D.

hood exists among the Kandhs. The result is an absolutely free trade in magical arts and incantations. Any man who can succeed in winning the belief of his neighbours may set up on the strength of a dream or a vision as a priest; but although his calling yields him an easy subsistence, he is debarred from the enjoyments of battle, and may not eat with laymen, nor partake of food prepared by their hands. He may, however, quit the priesthood at pleasure. As a rule, the ancient Kandh deities have Kandh or aboriginal priests, while the unmistakeably Hindu Goddess of Destruction chooses her attendants from among the Hindus. The national Kandh divinities all dwell upon or under the earth, 'emerging and retiring by chinks which are occasionally discovered to their worshippers.'[120]

One great ceremony united the whole Kandh race in the worship of the Earth-God. Several other deities, such as the God of Boundaries, from time to time received human victims; but the great Earth-God claimed these offerings, not only in all seasons of private calamity, but as an indispensable part of the public worship of the Kandhs. He is the Supreme God of the race, the solemn symbol of the productive energy of nature; and his worship united the whole Kandh tribes (otherwise so split up and severed) by a nexus of blood into a nation. 'The earth,' they say, 'was originally a crude and unstable mass, unfit for cultivation and for the convenient habitation of man. The Earth-God said, "Let human blood be spilt before me," and a child was sacrificed. The soil became forthwith firm and productive, and the Deity ordained that man should repeat the rite and live.'[121]

[120] Macpherson's Report, Part vi. para. 102.
[121] *Idem*, Part vi. para. 17.

Association in human sacrifice formed the one indispensable nexus of tribal union among the Kandhs. The Earth-God enjoys both a public and a private worship, the former from a tribe or a village as an entity, the latter from individuals who may wish to propitiate his wrathful nature. His worship is essentially a religion of deprecation, an unceasing struggle to get him to lay aside his chronic hostility to man, and to purchase his favour by the most costly and precious victim which man can offer to God. As regards his public or tribal worship, the whole community contributed to the sacrifice, and each farm sprinkled itself with the blood of the public victim twice a year. The stated periods were at the spring sowing and after the harvest; but a human victim became equally necessary when the terrible Earth-God sent pestilence to the people, or domestic calamity into the house of the Patriarch, as their representative. Besides these public ceremonials, he received private sacrifices from families whenever sickness or great distress entered their dwelling. Thus, when a tiger carried off a child while watching the flocks, no uncommon incident in Kandh life, the father received his bereavement as a sure sign that the Earth-God demanded a human victim. If the family had none to offer on the moment, it led out a goat, whose ear was chopped off and fell to the ground as a pledge to the Earth-God, to be redeemed by a human victim within the year. Among other tribes, the father pricked the ear of one of his surviving children, and the blood which trickled to the earth served as a pledge instead of a goat's ear. If the family could not buy a human victim before the end of the twelve months, the wretched parents had to offer up their own child, whose blood spilt upon the ground remained a witness of their vow to the Earth-God.

The victims were of either sex, and generally of a tender age. The detestable office of providing them formed a hereditary privilege of the Páns, one of the alien low castes attached to the Kandh villages. Procurers of this class yearly sallied forth into the plains, and bought up a herd of promising boys and girls from the poorer Hindus. Sometimes they kidnapped their prey, and each Kandh district kept a stock of victims in reserve, 'to meet sudden demands for atonement.' Bráhmans and Kandhs were the only races whose purity exempted them from sacrifice, and a rule came down from remote antiquity that the victim *must be bought with a price.* After a village had purchased a victim, it treated him with much kindness, regarding him as a consecrated being 'eagerly welcomed at every threshold.'[123] If a child, he enjoyed perfect liberty; but if an adult, the Patriarch kept him in his own house, and fed him well; but fettered him so that he could not escape. When the time of Atonement had come, the Kandhs spent two days in feasting and lascivious riot; on the third they offered up the victim, shouting as the first blood fell to the ground, 'We bought you with a price; no sin rests with us.'

As soon as the Kandh tribes passed under our care, it became necessary that this practice should cease. Accordingly, in 1836 we called upon the Rájá of the Tributary State of Bod to put down human sacrifice. Tribal councils and agitations followed; but in the end the Patriarchs agreed to give up to us their stock of victims, not as a pledge that they would discontinue the rite, but as a peace-offering of valuable property to their new Suzerain. They stipulated, however, that their honour must be saved, and this could only be done by our forcing

[123] Macpherson's Report. Part VI. para. 35.

all the other tribes to enter into a similar agreement. Such an agreement we at that time failed to effect, and the negotiations broke through. To Lieutenant S. C. Macpherson belongs the credit of extirpating the rite. He clearly discerned that if we were to deal with a people so sensitive and jealous of its honour, we must deal with it as a whole, and thus leave no ground for tribal heart-burnings. He next discovered a really effective basis for such an authority as he designed to impose. Each tribe had its internal Government complete, but our suppression of the Gumsar Rájá left the nation without any central rallying point. He proposed, therefore, that we should leave the tribal administration untouched; but establish our power as a federal *nexus*, which all the separate clans might acknowledge and obey. They would thus lose nothing of their personal freedom, but at the same time they would be loosely bound together into a nation. In short, Lieutenant Macpherson formed the design of advancing the Kandhs from the Tribal into the Federal stage of society, and he executed what he had conceived.

But he did more than this. He laid it down as his fundamental principle of action, that we could only exercise rule over the people by supplying among them certain *bona fide* functions of Government, the want of which they themselves had clearly felt. 'The voluntary and permanent acknowledgment of our sovereignty by these rude societies, must depend upon our ability to discharge beneficially and acceptably towards them some portions of the duty of sovereignty. They will spontaneously yield allegiance to us, only in return for advantages which are suited in form and in spirit to their leading ideas and to their social wants.'[123] In these words foreign nations

[123] Macpherson's Report. Part VII. para. 49.

might learn the secret of England's success in dealing with the peoples of India. The Patriarchal authority within each Kandh tribe was perfect, but centuries of clan feuds had taught them the evils caused by the want of any power able to arbitrate between different tribes. 'Justice betwixt the independent societies is, in a word, the great want felt by all.' Setting out with this idea of Government having a right to exist only if it could discharge certain specific functions really required by the people, Lieutenant Macpherson gradually gained over the Priesthood and the Village Heads. He appealed to their passionate desire to own land, and obtained for them settlements in jungle tracts of no value to us, but a perfect paradise to them. He also urged that little presents of money, cattle, and honorific dresses and titles should be given in return for their yearly homage. Above all, he insisted on employing the Kandhs as Irregular Police; and even advocated the raising of a Kandh battalion as a means of civilising them, and 'as an invaluable instrument in our future dealings with the other mountain races of Orissa.' But while he thus laboured by gentle and politic devices to win the affections of the race, he made it distinctly understood that such measures of conciliation would, if required, be enforced by the British Power.

Having thus established our authority on a basis of mutual good-will, his acts convincing them that he sought their benefit, not our gain, he developed his plan for putting a stop to human sacrifices. He did not hold the Kandhs or the Patriarchs to be morally guilty, but he arranged for the effective punishment of the procurers, and in a few years rendered the kidnapping or purchase of victims impossible. At the same time, he improved the material condition of the tribes, established fairs and com-

mercial gatherings, 'to draw them from their fastnesses into friendly and familiar contact with other men;' made roads, and converted the isolated and mutually hostile tribes into a prosperous and peaceful people. The British Government established a special Agency[124] for dealing with the Kandhs, effectively suppressed their bloody rites, and wisely refrained from interfering further with them. To the present day they pay no rent, nor do we take any revenue whatever from them, but merely keep order by means of a local Agent,[125] supported by a strong force of police. This officer confines himself to putting a stop to blood-feuds, adjusting dangerous disputes likely to lead to them, and taking cognizance of any heinous crimes. He is subject to the English Commissioner of the Province at Cattack;[126] the Bod Rájá no longer exercising jurisdiction over the tribes. Their chief product is turmeric, of an unusually fine quality. Hindu traders now penetrate with their pack-bullocks into the innermost recesses of the hills, and barter salt, cutlery, and cloth, for the precious dye and other highland produce. Surely as long as India remains to us, and as long as the records of Lieutenant Macpherson's work survive, no young Englishman need despair of being able to do some good work in this world.

The Kandh territory exhibits the simplest form of British Government within the Tributary States. But throughout the greater part of them we have established a more exact authority. We leave each State under its hereditary Prince, and allow him jurisdiction in civil disputes, and in all crimes not of a heinous sort. I have

[124] By Act XXI. of 1845.
[125] The Tahsíldár of the Kandhmals.
[126] In his capacity of Superintendent of the Tributary States.

given a detailed sketch of the Legislative history of our dealings with them in Appendix III. The Chiefs are amenable to the British Commissioner of the Province;[127] and this officer has jurisdiction in all serious offences, and may imprison criminals for a term not exceeding seven years. Sentences for a longer period, although passed by the Commissioner, must be reported to the Bengal Government for confirmation, and the Government alone can imprison or punish a Chief. Each Rájá pays a small tribute, now fixed in perpetuity, and bearing a very petty ratio to his total income. The whole tribute from the nineteen States, with a population of one million souls, amounts to £8388, or at the rate of a fraction over two-pence per head. The Chiefs admit that their revenues exceed £48,000 sterling per annum, and their actual incomes from all sources are probably double that sum. In return for their tribute, we assure them absolute security from foreign enemies, domestic rebellions, and inter-tribal feuds. In one case[128] we have had to dispossess a Chief for waging war, but his family enjoy pensions from Government. In another[129] the Rájá was convicted of flagrant murder, and his estate confiscated. The other seventeen Principalities remain under their native Chiefs, and the only cases of English interference have been to prevent the aggression of the strong upon the weak, or to support the authority of the hereditary Chiefs against their domestic enemies.

Under this mild form of Government the people have advanced in comforts and increased in numbers.

[127] In his capacity of Superintendent of the Tributary States.

[128] Angul, in 1847. *Vide* letter from the Superintendent of the Tributary States to the Secretary to the Government of India, Foreign Department, dated 24th March 1848.—O. R.

[129] Bánki, in 1840.

The rivers form the great highways of the Tributary States, but these arteries of trade are now fed by a hundred rude roads and mountain tracks suited for pack-bullocks. Wandering merchants pass secure through the deepest recesses of the mountains. The trade of the Tributary States consists of rice, sugar-cane, oil seeds, clarified butter, cotton, coarse cereals, timber, lac, turmeric, beeswax, and other jungle products. No permanent markets have yet developed, but each State has from three to ten villages at which weekly fairs are held. Business is conducted almost entirely by barter, a silver currency being scarcely known, and even the ancient shell money (cowries) of Orissa being sparingly used. I have already mentioned the ingenious and highly artificial system by which the Kandhs facilitate trade by barter. They have invented a currency of 'lives;' the said lives representing sheep or bullocks, or even inanimate objects in different localities.

Nothing like town life exists anywhere throughout the Tributary States. The cultivating classes cling to their hereditary fields, enjoying them either as their own property, as in the Kandh territory, or at a rent practically fixed by custom, as in the other and more advanced States. The lower landless castes wander about the forests, and know no more permanent habitation than a leaf hut. Amid this primitive population of woodmen and cultivators, we see husbandry in a transition stage. In the rich valleys, and wherever a supply of water can be commanded, the peasants gather together into permanent homesteads; each cluster of homesteads forming a village surrounded by its communal lands. But besides settled tillage of this sort, a curious form of nomadic husbandry still survives. The intermediate classes be-

tween the prosperous villagers and the wandering forest tribes, form temporary settlements for the purposes of cultivation. They encamp on some hill-side or jungle-covered valley, burn down the scrub and forest, and with scarcely any labour in tillage obtain rich crops of rice or cotton for four years. A similar form of husbandry exists throughout the mountainous frontier of Eastern Bengal and in Central India. It represents a distinct stage in the history of husbandry, and the whole series of stages may still be seen in the Tributary States.

Throughout the whole nineteen Principalities, covering 16,184 square miles, and containing a population of a million souls, not a single city exists. There are only six villages of more than five hundred houses, and only two of more than a thousand.[180] A large village generally gathers around the house or fortress (*garh*) of the Chief; permanent collections of huts grow up at convenient sites for trade along the rivers or roads; but with these exceptions, a village in the Tributary States simply means the communal homestead of a cultivated valley. Such common homesteads, however, generally contain a larger outside population than the more simple Kandh village. For, besides the landless low castes, they require a small body of shopkeepers and tradesmen suited to the more advanced state of social existence to which they belong. I shall explain at some length the different stages of husbandry and the various developments of village life among the Kandhs, the Tributary States, and the Hindu lowlands of Orissa, in my con-

[180] *Viz.* Nijgarh with 1121 houses and an estimated population of 6165 souls; Kantilo with 1113 houses and an estimated population of 6121 souls; both in Khandpárá, which adjoins our District of Purí.

cluding Chapter, when treating of the growth of rights in the soil.

But before passing from these Principalities, it may be well to strongly individualize two or three of the States, so as to give the reader a distinct idea of the form of human existence which still goes on among them. In 1870 I visited several of the Chiefs at their Forts (*garhs*). The most interesting among them was the Mahárájá of Dhenkánal, with a territory of 1463 square miles, and a subject population of 144,255 souls, distributed into 961 villages. He admits a revenue of £6000 per annum (his total income being probably very much higher), and pays the British Government a tribute of £509. We first came closely in contact with this State in 1812, when we had to settle a dispute which would otherwise have ended in an internecine war.[181] During the first half of the century family feuds and follies reduced the Principality to a miserable state, from which, however, the present Chief retrieved it. His excellent management and his charity during the famine of 1866 attracted the admiration of the British Government, and three years later he received from it the title of Mahárájá as a reward for the moderation and justice with which he rules his people. His capital clusters on the slope of a hill to the number of 650 houses, surmounted by a large and strongly built mansion, half-fort, half-villa, the residence of the Chief.

I found tents pitched for me under a noble grove of tamarind trees inside the outer wall of the Fort. A temple, with its flag flying, rose on my right, and an artificial lake, ornamented with a masonry islet, stretched in front. From the opposite shore of this

[181] Letters dated November 3d and December 4th, 1812. B. R. R.

little piece of water, a forest-laden peak rose precipitously, and the great hills stood all around the peaceful nook. The Mahárájá soon arrived in state, with sumptuously caparisoned elephants and gilded umbrella. He is a middle-aged man of courteous and intelligent demeanour, speaks Hindustání fluently, and knows a little Sanskrit. He suited his conversation to the supposed taste of the British Officer, and talked at great length of the 297 tigers which he had shot during his long and prosperous reign. He wore a fine silk tunic interwoven with gold spots, and had a gold-embroidered hat, shaped like a crown, on his head. His little adopted son accompanied him, and burrowed among my baggage like a ferret. He spoke with pride of his system of dealing directly with the husbandmen, and gave me a detailed account of his villages, and his twenty-eight Bráhman settlements on rent-free or cheap lands. No middleman is allowed to stand between him and the peasant, except in a few instances in which grants of land had been assigned to his officers of state.

I afterwards paid a visit to his Fort, one part of which has the look of a very strongly built Italian villa,[129] and contains a suite of rooms fitted up in the European style. It towers above the surrounding jungle, a little way up the slope of a precipitous, densely wooded hill. Irregular clusters and lines of mud huts still bear witness to the primitive dwellings in which the Rájás formerly resided. I found the court-yards, which lead one into another, filled with carts, timber, and building materials for the completion of a temple of fine white masonry to Lord Raghunath on the right of the principal gateway. Farther in, a family shrine rises to

[129] Built on the plan of the Commissioner's Circuit House at Cattack.

Vishnu;[183] and beyond is a pretty little court planted with lemon trees, oranges, and pomegranates, giving a green cool look to the whole place. In the European suite of rooms, which are laid out in halls something like those of a Neapolitan nobleman, I was called on to admire a curious medley of the costliest objects of art mingled with the pettiest gimcracks. The drawing-room tables of white marble and polished fossiliferous slabs were loaded with musical boxes, three or four of which the Maháráj set a-going at once, microscopes with beetles fixed in them, chiming timepieces, wax dolls, massive gold Albert chains, and little stucco sheep with black faces and yellow wool. Nor were books of photographs and costly engravings wanting, side by side with cheap German prints of nymphs combing their hair on the surface of a lake, and pirouetting *danseuses*. But the object of art on which he chiefly prided himself, was a microscopic opera-glass which, when you looked into it, discovered a picture of the Queen with the Prince of Wales climbing on her shoulders, and an infant slumbering in her arms.

After examining his really interesting Armoury, which includes every weapon, from the old brass-bound firelock to the latest breechloading rifle, the Mahárájá conducted me to the roof of the house, puffing asthmatically up the steep narrow stairs. We sat and looked forth on a landscape of lofty isolated peaks and high receding ranges. The dense forest gave its dark tinge to the whole, interspersed, however, with bright azure patches of tillage, and valleys of yellow crops, which looked like streaks of gold on a carpet of sombre green velvet. The early morning tint was over all, and spiral

[183] In his form of Krishna.

columns of grey smoke curled upwards from a hundred hearths in the jungle. The Mahárájá pointed out the different ranges through which the rivers of Orissa rushed down from the highlands. From amid a lofty cluster of peaks dimly visible in the cloud horizon on the south, issued the Mahánadí, emphatically The Great River. The sacred Bráhmaní wound round a nearer range of hills, swelled by a hundred highland streams, each with its river deity and legend. Throughout the vast world of forest and mountain which stretches between these two great rivers, every hamlet has its own village god, and every little division of the country its colony of priests dwelling rent-free, or at an easy rate, upon ancient grants of land. The Mahárájá told me that although he personally preferred the mild and gentlemanly forms of worship represented by Vishnu or Jagannáth, yet that he supported with an equal hand the priests of the Goddess of Destruction, and encouraged his people to worship the Great Creator under whatever form their imaginations might figure Him. He said that the wild jungle people for the most part selected the terrible aspects of the Divinity, but that human sacrifice had long ceased, and indeed the question never arose now-a-days within his territory. He himself had visited indifferently the shrines of all the great Indian deities,—at Purí, at Benares, at Allahábád, at Gayá, and at Brindában. The idea of resuming or interfering with religious grants, struck the Mahárájá as peculiarly impious. It seemed to him quite natural that the land which is the free gift of the gods, should pay something towards the worship of the gods; and a matter of profound indifference what special form of the Deity the people and the priests might prefer to recognise. I could not help

quoting to him Matthew Arnold's maxim, that the State should be of the religion of all its citizens, without sharing the fanaticism of any of them.

So far as I could gather, the Mahárájá gives a fine interpretation to his position as a semi-independent Prince. On my turning our talk to the Administration of Justice, he had out his law books, particularly the latest commentary on the Indian Penal Code in Uriyá and Bengali, and I found that he really understood the legal points which the annotator discussed. He does justice in public sessions to his people, and keeps his prisoners hard at work upon the roads. In the afternoon we went together to the jail. It consisted of a court-yard, with low thatched sheds running round three sides, and the guard-house on the fourth. The shed roofs came so low that a child might have jumped on to them, and thus got over the wall. When the guard turned out, moreover, we found it to consist of two very old men; and the Mahárájá was rather displeased to find that one of them had his matchlock under repair at the blacksmith's, while the other had left his weapon in his own village ten miles off, to protect his family during his period of service at court. Inside were sixty-nine prisoners, and I asked how it came that they did not, under the circumstances, all jump over the wall? The question seemed to strike the Mahárájá as a particularly foolish one. 'Where could they go to?' he said. 'On the rare occasion that a prisoner breaks jail, it is only to pay a visit to his family; and the villagers, as in duty bound, return him within a few days.'

The truth is, that the family instinct is still so strong in the Tributary States, that imprisonment, or even death itself, seems infinitely preferable to running

away from kindred and home. There were no female prisoners, and the Mahárájá stated that crime among women has not yet penetrated his country. I found the gang divided into two sections, each of which had a shed to itself on the opposite sides of the court: the shed on the third side being set apart for cooking. The one shed was monopolized by ten men, whose light complexion declared them to belong to the trading class, and who lolled at great ease and in good clothes in their prison-house. In the other shed were crowded the remaining fifty-nine, packed as closely as sardines, and with no other clothing except a narrow strip round their waist. On expressing my surprise at this unequal treatment, and asking whether the ten gentlemen who took their ease were confined for lighter crimes, the Mahárájá explained: 'On the contrary, these ten men are the plagues of the State. They consist of fraudulent shopkeepers, who receive stolen goods, and notorious bad characters, who organize robberies. The other fifty-nine are poor Páns and other jungle people, imprisoned for petty theft, or as the tools of the ten prisoners on the opposite side. *But then the ten are respectable men, and of good caste, while the fifty-nine are mere woodmen; and it is only proper to maintain God's distinction of caste.*' All the prisoners were in irons except one, a lame man, whose fetters had been struck off on the report of the native doctor. They looked very fat and comfortable, as indeed they well might, considering that the sixty-nine prisoners have an allowance of a hundred pounds of rice per diem, with goat's flesh once a fortnight, fish twice a month, besides the little daily allowance of split peas and spices to season their food. It did not seem to have occurred to any of them to feel in the least

ashamed on account of being in jail. One of them had been imprisoned twice before, and, on my asking him what his trade was, he explained that 'the younger brothers of his family were husbandmen, but that for his part he *nourished his stomach by thieving*.'

Next day the Mahárájá took me over his school and his charitable dispensary, both framed on the model of our own Bengal institutions of the same sort, especially in the number of registers kept, and the multitudinous returns regarding the pupils and patients. About noon arrived a band of jungle people, whose national dance the Mahárájá wished to show me. The men wore a single cotton cloth. The women had not even this, but simply a string round their waists, with a bunch of leaves before and behind. Two or three of the men beat with their fingers on little drums, while the women formed a semicircle and moved backwards and forwards in a rather tedious dance. They dwell apart from the agricultural population, and speak a language of their own, of which the Mahárájá afterwards gave me a vocabulary. The life they love best is to wander about the woods collecting the wild products, which they barter for food. Occasionally they hire themselves out in gangs to clear the forest for the more settled husbandmen; but even while thus engaged, they hold no intercourse with the agriculturalists, and receive the stipulated amount of rice through the hands of one or two representatives.

The Mahárájá told me that, as he is anxious to extend cultivation, he asks no rent from any jungle tribe that will settle down. They may cut down as much forest as they choose, and cultivate the clearing as long as they please. But all his efforts have failed to induce the nomadic tribes to submit to the toil of permanent

husbandry. They willingly burn a patch of jungle, but avoid the chance of any question of rent arising by deserting their clearing every third year. This practice simply means, that where land is to be had for the clearing, it pays better to take a rapid succession of exhausting crops off the virgin soil than to adopt the laborious processes of regular cultivation. The forest tribes show great talent in making a livelihood with the minimum of labour, and this is one of the ways in which they solve the problem. Several of the hill Chiefs try to levy a rent the second year on such clearings; but such efforts only result in the nomadic husbandmen deserting their settlements a year sooner, and having to burn new jungle every third year instead of every fourth. The Chiefs find themselves no richer, and the attempt to levy rent only makes their jungle subjects the poorer and more restless. In Dhenkánal, where the Mahárájá looks on the whole subject of jungle clearings with good-natured indifference, and indeed is anxious to encourage them as opening new ground for permanent tillage, the forest tribes seem to lead a contented well-fed existence. They raise just as much grain or cotton as they require from the virgin soil without the labour of ploughing, and spend their days in hunting, feasting, dancing, sleeping, and sunning themselves at the door of their leaf huts. If they want a little money, or any article that they must buy with money, is there not the Sál forest around them waiting to be cut, and sharp lowland traders in the bázár a day's journey off? These latter will only cheat them to the orthodox amount of one-half, both in what they buy and in what they sell, and in the end give them a full one-fourth of the value of their timber.

As Dhenkánal is the most civilised, so Morbhanj or

the Peacock Country is the largest of the Tributary States. I have alluded to the antiquity of the Peacock Princes in Chapter VI.; and the present rulers of Morbhanj trace their descent to the Jaipur kings, one of whose offshoots is said to have founded the Principality 2000 years ago. Passing over their appearances in Mediæval history, set forth in Chapter VI., the Morbhanj family emerges in the seventeenth century as the rulers of a hill territory extending over 7319 square miles. Their kingdom then included the State of Keunjhar, and the Rájás of several of the southern States,[134] as far as the District of Ganjám in Madras, trace their origin to the Peacock Dynasty. Morbhanj makes its entrance into the British records in 1782;[135] and from that date to our expulsion of the Marhattás in 1803, it seems to have remained in a chronic state of invasion, insurrection, and internecine feud. Since our accession, foreign invasion has ceased, and seven years later we put a stop to internal commotions by definitively recognising one of the claimants as Rájá,[136] and supporting him in his office with a high hand.

Keunjhar broke away from Morbhanj 200 years ago. Since then the latter has undergone various territorial changes, extending its boundaries at the expense of its neighbours whenever it was strong enough, and having in turn to submit to retributive annexations.[137] It now embraces 4234 square miles, and presents every variety of soil and scenery, from wild regions ot

[134] Gumsar, Bod, and Daspallá.

[135] Letters, dated March 28th, June 17th, and July 22d, 1782, etc. B. R. R.

[136] Letters, dated 7th August 1811, and March 1812. B. R. R.

[137] For example, in 1800 it asserted pretensions to the whole country between Sinhbhum and Balasor Districts, and laid claim to the present submontane State of Nílgiri. The Nílgiri Rájás give a different account.

unexplored mountains to the richest and greenest of valleys. In 1870 the Rájá returned his villages at 2319, with 24,224 houses, and 132,232 inhabitants. Another estimate in the same year gives a population of 191,200.

Our dealings with Morbhanj exhibit a fair specimen of our general management of the Tributary States. In 1784 the Rájá voluntarily agreed to pay a tribute of £320 a year.[188] But practically we found in 1804, when we became possessors of the country, that if we were to live in peace with the hill chiefs, we must tax them very lightly. Accordingly, notwithstanding the increase in the value of the State, Morbhanj now pays a tribute in perpetuity of only £106, while the Rájá enjoys an acknowledged income of £10,000 a year, but probably very much more. Morbhanj, however, long retained its turbulent character; and we have had to undertake the direct management of a small tract, in consequence of a peasant rebellion brought on by the oppression of the aboriginal population by the petty officials of the Rájá. Herds of elephants still roam through the forests and mountains; and the English Officer in charge of the operations for catching them has lately bagged upwards of a hundred fine animals during two seasons. The Rájá's emblem of signature is the ancient family peacock; and the peasants still regard the killing of this heraldic bird as sacrilege,—a prejudice which our officers very properly respect.

I have given a Statistical Account of each of the Tributary States in Appendix III., but I cannot here pass from our general administration of them, without a brief reference to Keunjhar. This Principality originally formed part of Morbhanj. But about two centuries

[188] Letter dated 2d August 1784, etc.—B. R. R.

ago, the Keunjhar tribes, finding it a hardship to travel through perilous forests to pay their tribute to the Chief, separated themselves, and set up the brother of the Rájá of Morbhanj as their independent Prince. The country covers an area of 3096 square miles, has a population estimated at 170,000, yields an income of £5000 a year to the Rájá, and pays a tribute of £197 to the British Government. It is divided into two wild tracts; Lower Keunjhar, including the valleys, and Upper Keunjhar, embracing the mountainous highlands.[189] The latter consists of great clusters of rugged crags, which afford almost inaccessible retreats to their inhabitants, and which, although from the plains they appear to be sharply ridged or peaked, have extensive tablelands on the top, equally fit for pasture and for tillage. On these plateaux dwell a curious multiplicity of tribes, from the highly developed Aryan, with his well-cut features and light-coloured skin, to the most primitive of peoples, the Bhuiyás and the leaf-wearing Jowángs. The Bhuiyás form the most important part of the population, covering a tract of 256 square miles, and numbering at least 10,000 souls. They assert an indefeasible right to the soil, and declare that they have lived on their lands *from the beginning*. They accordingly claim the honour of installing the Rájás of Keunjhar, and this title they have again and again maintained by obstinate wars. The slightest infringement of their old hereditary rights, or the faintest appearance of any design to claim rent, or to curtail their uncontrolled freedom, sets the

[189] Letter from Captain J. Johnstone, in charge of Keunjhar, to the Superintendent of the Tributary States, dated Keunjhar, April 13, 1869, para. 5. I here express my obligation to this admirable Report, and also to recent private letters from Captain Johnstone. For the exact statistics as to area, etc., I trust to Major Saxton and the Surveyor-General's Department.

whole mountains in a flame. In 1825 they resisted by arms an effort of the Rájá to levy a light tax, and since then have four times asserted their liberties by revolt.

The last was in 1868. In 1860 the hereditary Chief[140] died, leaving no legitimate issue. He had proved a faithful ally to us during the Kol rebellion of 1857, and the British Government, anxious to carry out what it believed to be his wishes, raised his natural son[141] to the State cushion. The Bhuiyás did not think that they had been sufficiently consulted in the matter, and resented the affront by a revolt. This rising, however, soon calmed down under the gentle policy of our Commissioner[142] in Orissa; and when a rival claimant started, the case was peaceably referred for decision to his Court.[143] The pretender supported his title by a deed of adoption said to have been executed by the late Rájá, and which would, if genuine, have given him the succession. This document, however, turned out to be a forgery. The Commissioner dismissed the claim, and two subsequent appeals to the High Court supported his decision. Meanwhile the litigation had protracted itself over eight years, producing a state of chronic ferment throughout the highlands, and, to use the Commissioner's own words, 'involving intrigue, dissatisfaction, revolt, and ruin to the State; trouble, danger, and expense to Government.'[144]

The comparatively civilised Bhuiyás gradually or-

[140] Rájá Dámodar Bhanj. Captain Johnstone's Report, para. 14.

[141] Dhananjay Bhanj.

[142] I use the word Commissioner to avoid introducing a multiplicity of titles for the same officer. As regards the Tributary States, his official designation is Superintendent.

[143] Under Regulation XI. of 1816.

[144] From T. E. Ravenshaw, Esq., Superdt. Trib. States, to Secy. Govt. of Bengal; No. 400, dated Camp Keunjhar, 26th October 1868, para. 7.—B. G. R.

ganized a general insurrection, and worked upon the imaginations of the wild leaf-wearing tribes, or Jowángs, by threats of the Divine wrath. The latter correspond in manners, in dress, in language, and in habits to the leaf-wearing people whom I have already alluded to in Dhenkánal.[145] These curious relics of aboriginal India are now rapidly disappearing, and one of the vernacular papers in Orissa recently stated (1871) that the Mahárájá of Dhenkánal had assembled all the chiefs of the leaf-wearing peoples, and ordered them to wear clothes. They agreed to do so if his Highness would supply cloth for all their families free of cost, pledging their word to replace it when it was worn out. The same paper states that the Mahárájá accordingly distributed some hundreds of dresses on the spot. Hitherto, any person belonging to the true leaf-wearing castes, who put on a cotton cloth, became *ipso facto* an outcast from his people.

Since writing the last paragraph, I learn that a similar work was effected last summer by our Government for the leaf-wearing tribes of Keunjhar. The women, to the number of 1900, came up, village by village, to the English representative, who presented each with a garment; while his followers publicly invested the children in clothes before the eyes of the whole people. Soon afterwards the females returned with their cotton clothes around them, and passing in single file before the Assistant Superintendent, made obeisance to him, and were marked on the forehead with vermilion, as a sign of their entering into civilised society. They then gathered the bunches of leaves which formerly clothed

[145] I have to thank Captain Johnstone for a Jowáng Vocabulary, which, upon comparison with that of the Malhars or Patoas, prepared for me by the Mahárájá of Dhenkánal, establishes the identity of these now separated sections of the leaf-wearing tribes.

them into a huge heap, and set fire to it; while the men of the tribe solemnly pledged themselves never again to permit their women to return to this primeval dress of forest life.[146]

It may readily be imagined that a primitive forest race like the Jowángs, afforded an admirable field for the workings of superstition. A leading man among them distinctly told one of our officers that the whole country lay under a curse in consequence of the wrong done to the hereditary Prince. We had set up an illegitimate Chief, 'and they were all being punished for it. The rains had been backward, and their wild roots and vegetables had not been plentiful. Their old people had also died in greater numbers than usual from the injustice. That unless they deposed the man whom we had supported, they would have no more happiness.' Accordingly, that they had resolved to carry him off, and make him agree to abdicate.[147] Others of them entertained the Commissioner of the Province by songs of rebellion, predicting the downfall of the usurper and the triumph of the legitimate Chief.[148] Having thus stated their intentions, they proceeded to carry them into effect. In April 1868, they assembled twenty thousand strong,[149] captured the Keunjhar Fort, sacked the town, and, true to their aboriginal hatred against the high caste Aryan race,

[146] Letter from Assistant Suptdt. of the Trib. States, dated Keunjhar, 20th June 1871. Appendix A. to the Superintendent's Letter to the Govt. of Bengal, dated 14th July 1871.

[147] Letter from Dy. Commr. Sinhbhum to Commr. Chotá Nágpur; No. 94, dated Banspol, 10th May 1868.

[148] For example, one beginning, 'As the bamboo puts off new shoots, so surely will Brindában (the legitimate Prince) be Rájá;' quoted para. 10 of Mr. Ravenshaw's letter to Secy. Govt. of Bengal, dated 28th December 1867.—B. G. R.

[149] Letter from Dy. Commr. of Sinhbhum; No. 92, dated Camp Jaintgarh, 5th May 1868.—B. G. R.

slew a Bráhman in cold blood. They carried away the Rájá's Minister captive into the mountains, with others who had made themselves conspicuous in his detested cause; took possession of the passes; intercepted our messengers; encountered our detachments, and plundered our baggage.

Such a state of things could be of but short duration in any part of India, under even nominal British Rule. Early in June, detachments of the Madras Native Infantry stationed at Cattack hurried into the highlands, with two companies of the 37th Grenadiers;[150] while a part of the 10th Regiment from Chotá Nágpur advanced rapidly from the north, covering 32 miles in a single march.[151] In spite of rain, swollen floods, the inaccessible nature of the country, and an outbreak of fever among the troops, the result could not long remain doubtful. At one time, a detachment of the Grenadiers 'were hemmed in by flooded streams both in front and rear, and obliged to halt for many days until the waters subsided.'[152] But a series of flying columns penetrated the hills, burned the villages of the principal rebels, drove off their cattle, carried away their grain, released any prisoners whom they found in durance, and so put an end to the struggle in four months. Several of the surrounding Native Chiefs took the opportunity of seeing a little fighting, and joined our Camp; one of them riding in at the head of two hundred soldiers, besides camp followers. By August all the rebel chiefs had either been captured, or had surrendered, and actual hostilities ceased.

[150] Under Major Hawke and Lieutenant R. Hunter.

[151] Under Major Geoghan from Durandah. Joint Report of Mr. Ravenshaw and Colonel Dalton; No. 365, dated 3d October 1868, para. 11.—B. G. R.

[152] *Idem*, para. 13.

The Trials which followed dealt leniently with men who, after all, had only acted according to their immemorial custom. Out of the mass of prisoners taken red-handed in murderous revolt, only six received sentence of death. About a hundred others suffered various terms of transportation or imprisonment. I met some of the latter in Purí Jail. They had a sickly and dejected look, and were evidently pining in the lowland prison for their native hills. Out of a total of forty-eight, no fewer than eleven had died in 1869–70; and the Doctor told me that they seemed to have no specific illness, but merely fretted themselves away until a paltry attack of disease blew them out. It is only right to add, that everything that science and humanity could do for them, short of actual release, was done; and on the Lieutenant-Governor's learning the high death-rate among them, an immediate investigation was made. It turned out that the great mortality was due to their going through a process of acclimatization from the hills to the plains, and that after the first year the high death-rate ceased.

The mild form of Government, which is all we venture upon in the Tributary States, has, therefore, its own set of difficulties. We can put down heinous crime, and, in general, save the people from the miseries of frontier raids and domestic usurpations. But such a system is liable to armed disorders on a scale wholly unknown under our more exact administration of the plains. I have given a picture of one of the Tributary Chiefs, the Mahárájá of Dhenkánal; but I should leave a wrong impression on the mind of the reader, if I were to allow him to suppose that this is the usual type of the Hill Princes. On the contrary, he represents the very highest point of culture, moderation, and justice, which

any of the Chiefs has attained under our *surveillance.* In the course of a few weeks I visited three others of the Tributary States. In one, I found the Chief a fair specimen of the old Hindu Rájá,—a good deal in the hands of the Bráhmans, very proud of his domestic bards and genealogists, but destitute of anything like that sense of responsibility to his people which forms so conspicuous a feature of our English Government. The other two Chiefs were of the sensual repulsive type, to which the Anglo-Indian officer is so painfully accustomed among the rich landholders of the plains. Before they were five minutes in my presence, they had administered to me an artless concoction of truth and falsehood about their poverty, the devastation of their villagers by tigers and wild elephants, the wicked encroachments of neighbouring Chiefs, and the ruinous state of their Forts. This monotone of complaint they wailed forth in the whining falsetto of men habitually addicted to narcotic drugs, while their glazed eye and absent manner told the same tale.

One of them varied his story of the devastations of wild beasts by a tirade against robber bands who infested his territory. He stated that gangs of plunderers lived securely in the villages of the adjoining State, and used his country as a hunting-ground, in which they harried at pleasure, and then retired in perfect safety to their homesteads across the border. From his own story I felt greatly disinclined to believe a single word that he said. Among other topics in praise of himself, he descanted on a great robber hunt from which he had just returned. I happened to have reached his Fort in time to witness his arrival from this expedition. His force consisted of three elephants, heavily-caparisoned lumbering animals, that

gave the pace to the whole party, never exceeding three and a half miles an hour; with led horses behind, not one of which his Highness dared to mount; and a motley following of matchlock-men, macebearers, and musicians. I experienced much difficulty in listening with proper sympathy to his pathetic account of the total failure of the expedition; and went away from at least two of the Tributary Forts with a very distinct impression that I had much rather be a visitor of the Rájá than his subject.

I proceed now to the third form of Government which we have adopted in Orissa. Among the wild Kandhs we attempt nothing like an exact administration, levy no revenue from them, and content ourselves with maintaining a native Agent, to prevent blood-feuds and similar crimes on a large scale. Our Government of the Tributary States represents the next step. It amounts to a cautious *surveillance*, by which we adjust all important disputes and punish heinous offences, taking in return a small fixed tribute from the Chiefs, but not interfering in any way with the revenues or the people. The third and most complete form of Government is the Administration of the three British Districts of the delta.[158] This part of Orissa forms in every respect an integral portion of our Indian Empire. It covers an area of 7723 square miles, with a population of two and a third million souls. A Commissioner belonging to the Covenanted Civil Service administers the whole from Cattack, while the local charge of each of the three Districts is entrusted to a covenanted officer, entitled a Magistrate and Collector, aided by a small staff of Assistants and Deputies. Throughout the three Districts we claim the ultimate ownership of the soil, and

[158] Cattack, Purí, and Balasor.

exercise all the functions of Government. These functions, as understood by the Hindu mind, are three in number, and rest fundamentally on the idea of the proprietorship of the land. As landlord, we have a right to the rent; and as landlord, we are bound, in return for the rent, to protect the country from armed violence, and to administer justice among the people. I propose very briefly to examine how far we have succeeded in the discharge of these duties.

And, first, with regard to the repression of armed violence. We have seen the chronic state of rapine which afflicted Orissa under the Marhattás, during the sixty years preceding our accession.[154] The commencement of our Rule marks the termination of these miseries. I have not been careful to disguise the fact that we won the Province by ousting the Marhattás—foreigners like ourselves. But as some minds have a hankering after legal forms, irrespective of the real facts, it may please them to learn that we hold Orissa under precisely the same Deed from the Delhi Emperor that gave us the rest of Bengal.[155] On the 12th August 1765, we obtained the Grant of Bengal, Behar, *and Orissa*, and in all subse-

[154] From a Palm-Leaf MS. in the possession of Babu Krishna Chand, an aged Hindu, and formerly Diwán to the Mahárájá of Khurdhá, I find that this chronic state of violence existed long before the Marhattá period, although it then reached its climax. I am indebted to Mr. Ravenshaw, the Commissioner of Orissa, for an Uriyá copy on paper of this curious MS. It was with the greatest difficulty that the old Diwán was induced to allow extracts to be made—the copyist never being permitted to remove the original Palm-Leaf MS. out of his sight. It begins with the year 1504, and proceeds without any exact chronological order to the middle of the seventeenth century; forming throughout a record of strife and devastation.

[155] Firmán from the Emperor Shah Alam, granting the Diwani of Bengal, Behar, and Orissa to the Company; Number XVI. of Treaties and Engagements published by order of the East India Company in 1812, with subsequent documents; *e. d.* No. 19 being a separate Firmán of the same date for the Diwani of Orissa.

quent proceedings, both in India and in Parliament, it was assumed that we actually possessed Orissa, just as we actually possessed Bengal and Behar. The fact that the Emperor's Deputy, in Bengal, had thirteen years previously made over Orissa to the Marhattás, seemed, perhaps, too trivial a circumstance for the Emperor to mention in his subsequent dealings with us. We ourselves paid little heed to the matter, and made no efforts to upset the *status quo*, until the Marhattá encroachments throughout our whole Empire rendered it necessary for us to decide whether they or we were to rule in India. When this time arrived, we drove them out of Orissa, and assumed the sovereignty by virtue of recent conquest and of old title. During the two years which followed our accession, several of the native Chiefs exercised their customary privilege of armed violence.[156] Such disorders were, however, inevitable to a change of the governing power. Since then, the only trouble of this sort was the Khurdhá rising in 1818.

I have carefully gone over the Records of this rebellion, particularly a manuscript Report in 325 folio pages, by Mr. Ewer, the Commissioner, and I cannot avoid the conclusion that we ourselves were to a large extent to blame.[157] Our more exact system of Government enabled individuals to enforce their rights against each other to an extent to which the people of

[156] Particularly the Mahárájá of Khurdhá, who was imprisoned for a short time in consequence, but afterwards reinstated in 1804; also the seaboard jungle Rájás of Kujang and Kaniká, the latter of whom remained in disgrace in 1806, and occasionally gave trouble afterwards. *Vide* App. II.; also Rev. Claudius Buchanan's Life, vol. ii. p. 10, Ed. Oxford, 1817.

[157] Report by Mr. W. Ewer, Commissioner of Cattack, to Chief Secretary to Government, dated 13th May 1818; also a very telling letter from Mr. Deputy Collector Melville to Secretary to Commissioner of Cattack, dated 22d March 1819.

Orissa had never been accustomed. Keen saving adventurers flocked in from Bengal, and gradually ousted the more simple and less thrifty aristocracy of the Province. One of these new men carved a fine inheritance out of the Khurdhá possessions, and in the end ousted the Mahárájá's Generalissimo[158] from his Fort and Military Fief.[159] A strong party immediately formed round the expelled chieftain and joined their wrongs with his. They accused us of increasing the Land Tax, while in reality we took very much less than the Province had paid to the Mughuls, although more than it had recently yielded under Marhattá misrule. In short, we had substituted a regular revenue for the undefined and often unsuccessful extortion of our immediate predecessors. Our Currency Regulations, which compelled the people to pay their Land Tax in silver, and our heavy duty upon salt, furnished better ground of discontent. But these annoyances would have been willingly borne in consideration of the peace and prosperity which our firm and just Government introduced into the Province. Unfortunately, however, we had filled our courts and public offices with highly educated unscrupulous subordinates from Bengal, whom the Uriyás regarded as foreigners just as much as if they had been Marhattás. Indeed, under the Marhattás, the peasantry could always put a limit to their miseries. The jungles afforded a safe retreat from Marhattá violence, but no asylum could be found to shelter the unhappy Uriyás from the dexterous extortions and chicanery of our Bengali underlings.

Such exactions appeared intolerable insults to the

[158] Jagbandhu by name, the Rájá's Bakshi, or General and Paymaster of the Forces.

[159] The Kila Rorang.

nobility and peasantry of the ancient royal domain of Khurdhá. To drive out their oppressors seemed to them merely the legitimate and customary mode of making known their sufferings to Government. They found, however, that the same stern strength and justice which saved them from armed violence on the part of their neighbours, could permit nothing like forcible resistance by themselves. The rising was promptly put down, the rebellious domain was confiscated, and the Mahárájá sunk from a great hereditary Prince into a wealthy country gentleman. He retains his ancient rank of Mahárájá—the highest title known among Indian Princes—with the charge of the national Temple of Jagannáth, and all other hereditary dignities, short of independence or royalty. The present Mahárájá lives chiefly at Purí. In 1870, when he paid me a visit, I found him an interesting and intelligent little boy, clad in spotless white robes and jewels, with all the gentle self-possession characteristic of his class. He seemed very full of his studies, and knew, besides the ordinary vernaculars, a little Sanskrit. His tutor or governor explained to me that his pupil could not be taught English, or Persian, or any foreign tongue, without losing in the popular mind that high purity which from time immemorial has sanctified the hereditary guardian of Jagannáth. This seemed to me a pity, as it practically condemned a promising State Ward to stand still while all India is moving forward. It is, however, a prejudice deeply rooted in the minds of the people, and which it seems wise on the whole for a foreign Government to respect.

But although the Mahárájás of Khurdhá have ceased to be an independent dynasty, they still exercise one of the most cherished prerogatives of an Eastern Royal

House. The whole Orissa population date their documents according to the year of the Rájá's reign. They have thus an era equally distinct from the Christian, the Musalmán, and the Hindu methods of reckoning time. The first, sixth, tenth, and twenty-sixth years after each accession are deemed unlucky, and never counted in the current chronology. A new Mahárájá, therefore, begins in his second *ank*, or year, to reign in the affections and the documents of his people. Orissa has always been prolific of prophecies, dated according to the local era; prophecies in which the people firmly believe, and which sometimes bring about their own fulfilment. At the present day, such predictions cause not only widespread discomfort and alarm, but sometimes a very serious loss of material wealth. The Vishnuvite mendicants keep the manufacture of them in their own hands, and work them for their own purposes. For example, the Income Tax touched in an unprecedented manner their monastery lands; and the unsettled feeling arising from the bewildering succession of Licence, Certificate, and Income Taxes in late years, prepared the peasantry for the most extravagant portents and omens. Among the spawn of prophecies which accordingly spread like wildfire through Orissa, one had eventually the honour of being noticed in the Government Gazette. It ran somewhat as follows: 'Take heed of the 13th *ank* (or year of the Mahárájá's reign). In the 14th *ank* a great battle will take place; in the 15th there will be nothing left to eat; in the 17th the truth will come.'

A million of peasants went in fear and trembling for many months at the sound of these mystic words. The prediction of the general extermination of the people for some time actually held back the husbandmen

from tilling their fields. I question whether such a compliment has ever been paid to Dr. Cumming's intimations of the end of the world. But the truth is that these Indian races, to the spiritual side of whose nature our English Government is by its very position forced to shut its eyes, and for whose spiritual wants we can make no provision, have got a capacity of belief and a depth of religious emotion, which, if worked upon by a really great leader, may yet be destined to blow in pieces our Rule. However this may be, the current chronology still survives in spite of our schools, and notwithstanding the use of the Christian era in public business. The dearth of 1865–66 is universally spoken of in Orissa as 'the famine of the 9th *ank*.'

I now pass to the highest form which British Government has assumed in Orissa, namely, the administration by English officers of the three great deltaic Districts of Purí, Balasor, and Cattack. A former Chapter has displayed the desolation of the Province when it passed to us from the Marhattás in 1803. The hereditary heads of the people had fled to the jungle; no landholders could at first be found to engage for the lands; nor any sufficient population to till the fields. In 1806 the Rev. Claudius Buchanan, Vice-Provost of the College of Fort-William, made a tour through Orissa. From the moment he entered the Province he seems to have been in danger of wild beasts. Between Balasor and Cattack, in a country now as safe and as closely cultivated as Kent, he 'passed through a jungle where tigers abound,' and required a guard of seven Sepoys for the journey. He speaks of peacocks perching quietly on trees along the highway, and the tigers nightly roared round the outskirts of Jagannáth itself. A hunting party

of eight elephants had lately been despatched from the capital of the Province against them. They seem to have made havoc of the unhappy pilgrims, whose bones strewed the highway; and Dr. Buchanan describes the neighbourhood of Jagannáth as 'a valley of skulls.'[160]

Such devastations have long ago ceased under British Rule. But they still continue under the less exact administration of the Native Chiefs in the Tributary States. Wild elephants infest at least five of these Principalities, laying waste the crops, carrying away the villagers, pushing down the barn-walls, and occasionally trampling a whole hamlet into ruins. It is now impossible to find a wild elephant throughout the length and breadth of our three Districts, and an English Magistrate thinks himself fortunate if he can hear of a couple of tigers in the year. At a single Pass in the Tributary States they killed upwards of three hundred persons during three recent years. In the State of Bod, 86 people were devoured in 1869, and the Rájá was obliged to engage a hunting party from Sambalpur. In some Principalities the tigers watch the villages, and seize any one who strays beyond their limits. The people look upon them as an inevitable evil, to be propitiated rather than provoked; and among some tribes any attempt to kill them is regarded as little short of sacrilege.

The population in our three English Districts has so enormously increased under British Rule as to make it very perilous work for a tiger to get his living. Impenetrable jungles have given place to vast expanses of rice fields; indeed the peasants complain that tillage has so widely extended as not to leave enough land for pas-

[160] Diary, 14th June 1806. Memoirs of the Rev. Claudius Buchanan, D.D. Vol. ii. chap. v. Ed. 1817.

ture. In 1822 the Commissioner returned the population of the whole Province at 1,296,365. In 1855 it had risen to 2,644,087. Even at the close of the famine of 1865–66, 2,086,638 still remained, and in 1869–70 they had again increased to 2,319,192. The Census of next year will in all probability disclose a population exceeding two and a half millions. During the half-century of British Rule since 1822, therefore, the population of lowland Orissa has exactly doubled. This increase, unparalleled in the best governed agricultural countries of Europe, results not from any growth of the town population. It simply means that tillage has doubled during fifty years of English Administration, and that for every single peasant's homestead then, there are two now.

The Orissa population has hitherto developed no tendency towards city life. For example, while the rural population has thus enormously increased, the capitals of the three Districts can barely hold their own, and no new centres of industry spring up. Thus, in 1825, Purí contained 5741 houses; and although their number increased in 1841, on the abolition of the Pilgrim Tax,[161] they had fallen again in 1869 to 5789. Cattack, the capital of the Province, furnishes an even more signal example of the popular aversion to town life. In spite of the greatly increased number of officials, and of its being made the starting-point for the network of canals, Cattack shows no progress as a city. In 1825 the Commissioner reported that it contained 40,000 inhabitants. In 1869 a most careful census only disclosed 46,436,—the slight increase being more than accounted for by the day-labourers temporarily drawn to it for the

[161] Act X. of 1840.

Canal works.[162] Yet Cattack fulfils every condition which should lead to the growth of a city. I have already mentioned its antiquity, as the capital of the Orissa Kings since the tenth century.[163] For nearly a thousand years it remained the Capital of the Province. It is still the Headquarters of the British Administration; and it commands the whole commerce from Central India, by the great trade route of the Mahánadí. Situated at the first bifurcation of this river, protected by massive embankments from its floods, and forming the nucleus of a widely ramified system of canals, Cattack nevertheless fails to attract the homestead-loving people of Orissa. Nothing except dire necessity can induce the Uriyá peasant to quit his hereditary fields; and if so compelled, he will prefer the humblest shed in the country to a city life. He looks down on the townspeople, and seldom intermarries with them, partly owing to the idea that the customs and practices of town life are not strictly in accordance with caste rules.

Even when the Uriyá husbandman is forced to betake himself to a town, he carries with him all the habits of the country. The maritime city of Balasor, the capital of the District of the same name, furnishes a conspicuous instance of this. In spite of its mercantile character, village life goes on in the heart of the town just as it does in the remotest homestead. The cows are driven forth in the morning, and straggle back to the sound of a conch shell at sunset. In harvest time the hot breath of the bullocks treading out the grain blows into the face of the passer-by along the streets, and busy

[162] I have taken the actual population of Cattack instead of the number of houses, as the latter depends upon the interpretation which the local Officers for the time being give to the term 'dwelling.'

[163] Vol. i. p. 275, etc.

citizens pile up the old-fashioned Uriyá rice-stacks within sight of the market-place. Nearly every shopkeeper has a patch of land to which he clings with all the fondness of a Hindu peasant. The minor towns throughout the Province are mere collections of hamlets; sometimes clustering into crowded streets and bázárs, but in many places separated by clumps of trees and rice-fields. Indeed, the same might have been said fifty years ago of all Bengal, although the influx of capital and the growth of the mercantile spirit under British Rule have now developed a tendency towards city life in that Province. Calcutta itself, the Capital of British India, was in the last century simply a cluster of villages, and the names of these old hamlets survive as the divisions of the metropolis at this day. Passages in the old records speak of tilled fields in a locality now grown into a dense nucleus of streets, and epidemics were attributed to the wide expanse of rice cultivation in what has become the heart of the city. In Orissa, so far from any tendency being apparent on the part of the population to collect into the larger cities, the smaller towns cannot hold their own. While the rural population has doubled, the Magistrate of the Balasor District reports to me that several cities seem to have been larger in former times than they are now, and that others have certainly declined within the past two or three generations.[164]

This vast increase of the rural population is simply the result of good government. We have as much as possible left the people alone, and somehow they have increased of themselves. Famines, inundations, wild

[164] Bhadrakh and Jaleswar are examples of the former; Soro and Balasor itself of the latter. I take this opportunity of again acknowledging my obligations to Mr. John Beames, Magistrate of Balasor, for his official Reports and valuable private communications.

beasts, war, and oppression, had kept the Province at an unnaturally low ebb; and we had only to remove these chronic checks on population in order that the inhabitants should rapidly increase. No foreign enemy has crossed the boundary of Orissa since 1803. Armed violence on the part of the rulers has ceased; oppression on the part of the landholders, and a hundred of their vexatious imposts, such as those on the marriages of the peasantry and the birth of their children, have been put down. Courts of law have been brought within every man's reach, and the villagers no longer adjust their disputes by bands of incendiaries and clubmen. Meanwhile the criminal classes have been effectively dealt with, and a firm Police Administration has rendered anything like kidnapping, or the old depredations on a great scale, absolutely incredible to the Orissa peasant of to-day. Nor has the British Government stood by unmoved, and viewed the even more terrible devastations of famines and floods. Our efforts to control the water supply will form the subject of next Chapter; meanwhile I propose to devote a few pages to the administrative improvements which have enabled a rural population to double itself during fifty years of English Rule.

The first thing that strikes a student of the Orissa Records is, that we spend a great deal more upon the actual work of administration than any previous rulers of the Province did. Its ancient Native Princes maintained a stately Court, a vast Army, and an enormous Civil List, besides the sums which they spent on their private pleasures. The seraglio alone of the more magnificent of the Orissa Kings would now swallow up our whole revenue. The Palm-Leaf Records relate how one monarch prematurely died just as he had married

his sixty-thousandth wife; and a European traveller speaks of a later Prince, the ladies of whose family numbered five thousand. When the Native Dynasty sunk beneath the Afghán sword, Orissa became a storehouse from which one set of foreign masters after another drew supplies. Mughul and Marhattá wrung the uttermost farthing which chronic misrule allowed them to squeeze out of the Province; the only change being, that the booty was sent to Delhi under the former, and to Nágpur under the latter. In 1803, when the country passed to ourselves, we did not venture to spend very much on our acquisition. We placed a Collector, or his subordinate, in the three District Capitals, and told him to get as much and spend as little as he possibly could. Thus, in Cattack, the largest District of the Province, the whole expenditure on Civil Administration in 1829–30, the first year of which regular Records survive, amounted to £114,438. In 1860–61 it had risen to £193,882; and in 1868–69, after ten years of Government under the Crown, it had still further increased to £268,791. In Purí District the total expenditure in 1829–30 was £12,357; in 1860–61 it was £16,722; and in 1870–71, £22,843.[165] During the past ten years under the Crown the revenues of this District have remained stationary, while the expenditure on Civil Administration has increased by thirty-six per cent. The total cost of governing Orissa has risen during the last forty-three years from £175,000 to £348,895. During ten years of Government by the Crown it has increased from £260,109 to £348,895. This is independent of the million and a

[165] These figures in all cases represent the expenditure after the elimination of Transfer Accounts. For 1870–71 I have had to use the Budget Estimates.

third sterling spent upon the Orissa Canals,—a loan which, at five per cent., involves a further charge of £65,000 a year. If we add the last item to the local expenditure, the cost of governing Orissa now amounts to £413,895, or between two and three times what the Company spent on it in 1828–29; and fifty-nine per cent. more than what its Civil Administration cost in 1860, two years after it passed under the Crown.

This, too, in spite of every attempt to reduce salaries. During the same period that the cost of Administration has doubled, the emoluments of the governing body have been practically reduced to one half. The additional expenditure has not been laid out in benefiting the officials, but in increasing their number, and rendering the protection to person and property more complete throughout the Province. Thus, in the Chief District, Cattack, there were in 1816 only four Courts, revenue or judicial. In 1850 the number had increased to eleven; in 1862, to sixteen; and in 1869, to twenty-one. Purí District had three Courts in 1828–29; seven in 1850; nine in 1862; and twelve in 1869–70. In Balasor there was but one permanent officer in 1804; eight separate Courts in 1850; nine in 1862; and thirteen in 1869–70.

The Police have been augmented in an even larger ratio. In Cattack District the salaries from the rank of head constable upwards increased from £540 in 1833 to £1286 in 1860; the cost of officering the force is now £4454; and the total charge for the *Regular* Police alone amounts to £13,270 sterling. In Balasor, Government paid £444 in 1824, and £1584 in 1840, for the same grades of officers. In 1868, the cost for European and Native Officers had grown to £3445, and the total expenditure on the Force to £10,252.

But it is needless to enumerate examples from the more complete statistics which I give in the Appendices to this work. In 1803, when we obtained Orissa, nothing like a regular Police Force existed. The only machinery for protecting person and property consisted of the Village Watch, a well-organized guild of banditti, whom the peasantry were accustomed to liberally bribe, on condition that they would refrain from plundering them. This institution has come down from the earliest times; and the Village Watchman in Orissa, as in the Kandh country, is generally a representative of the aboriginal races who occupied the country before the present occupiers of the soil. He always considered every village except his own as fair booty, and half a century's vigilance on the part of our Regular Police has barely sufficed to change this state of things. The Regular Police, a strictly British institution, now numbers 2126 in the three Districts of Orissa, and anything like crime on a great scale has ceased.

The state of our jails places this fact beyond doubt. Cattack is the most civilised of the three Districts, and furnishes the highest proportion of criminals. Yet the average jail population, including not only the Central Prison at Cattack, but also the subdivisional lockups,[166] was 415 in 1868, or about one person always in jail to every 3116 of the population. Of these only 16 were women, or one woman to every 80,818 of the population. No European country could show anything like this immunity of crime which the worst District in Orissa enjoys. In Balasor, the proportion of persons in jail is one to every 3375 of the population, or one female to every 121,278 of the population. Purí District, however, the seat of the so-called abominations of Jagannáth,

[166] At Jájpur, Kendrápárá, and Jagat-sinhpur.

would blush to own such an overwhelming criminal population. Including both the central and the sub-divisional jails,[167] the proportion was, in the last year of which I have the returns, one criminal always in jail to every 6000 of the population, and one female to every 100,000. The Paganism of India has many a melancholy aspect; but let those Christians who declaim on the vices and iniquities of Hinduism, ponder over these official statistics of the criminal classes in the most orthodox Hindu Province of our Indian Empire.

The truth is, that a well-to-do, home-loving peasantry like the Uriyás have little inclination to crime. Their religion, although falling far short of that higher level of faith and Christian activity which the Western world has reached, nevertheless exercises a very practical influence on their life; and public opinion has a power among their secluded homesteads which it has long lost in the great cities of Europe. 'To do right, and to worship the village God,' may seem to English theologians a very inadequate rule of life. But no one who strictly adheres to it will ever find himself within a British jail. The Orissa husbandman, moreover, loses much more by imprisonment than an English citizen does. In the first place, he becomes an outcaste, and his only choice at the end of his sentence lies between degrading expiations in his own village, or perpetual exile from the home which he loves better than life itself. Finally, our system of police renders crime in Orissa almost equivalent to detection. This by no means applies to all Bengal, but among the strictly rural population of Orissa it certainly does. Our principle has here been, never to abolish any of the ancient machinery for the

[167] At Purí and Khurdhá.

protection of person and property, but constantly to add new organization for compelling the previous machinery to do its work well. When we obtained the Province, the Village Watch was simply an engine of oppression and gang-robbery; but the Regular Force alluded to above, with the Municipal Police now organized in every rural town, render it perilous for the Village Watch to abuse its position or neglect its duty. Including these three separate forces, the Police of all ranks in Cattack District amounts to 6219 men, maintained at a charge of £24,002 per annum, being one policeman to every 172 of the population. The annual cost of protecting person and property throughout the District is now £7, 2s. 5d. per square mile, or upwards of 5d. per head of the inhabitants.[168] Balasor has one policeman (including the three separate forces) to every 125 of the population, and costs at the rate of £4, 6s. 5d. per square mile, or close on 7d. per head of the population. Purí has 3393 men of all ranks, maintained at a cost of £11,833 a year, being £5, 7s. 9½d. per square mile, or 4¾d. per head of the population.

The three Districts of Orissa, therefore, with their area of 7723 square miles, and their population of 2,319,192 souls, are guarded by a total police force of 12,670 men, costing £49,085 a year. Of this vast army, by far the largest proportion consists of the Village Watch. These alone number 10,360 men, and are paid partly in money and partly in land; the total annual cost being estimated at £15,569, or at the rate of about half-a-crown a month per man. Theoretically, each village or

[168] This and the following figures are framed on the area as calculated by the Inspector-General of Police; not on the square-mileage returned by the Surveyor-General, and adopted in my Statistical Account.

communal homestead has its watchman. But the extension of tillage and a variety of ancient conflicting customs leave but little appearance of this theoretical symmetry. Thus, in Purí District, each Village Watchman's beat consists of three-quarters of a square mile, containing on an average 30 houses and 190 inhabitants. His yearly cost is about one penny per head of the population. In the adjoining District of Cattack, each Village Watchman has only 0·65 of a square mile to look after, but on an average 38 houses and 199 inhabitants. Owing to the difference in his emoluments in money or land, his estimated cost here amounts to twopence per head of the population per annum. In Balasor, the District which adjoins Bengal, and in which the growth of the new communal homesteads has most rapidly taken place, the Village Watchman has, on an average, four hamlets under his charge, containing a total of 36 houses or 218 inhabitants. Whatever may be the defects of the Indian Rural Police—and in another place I have dwelt on them at some length[169]—this village organization certainly acts well in Orissa, the Province of Bengal in which village institutions still survive in their most complete form.

But the rapid growth of the inhabitants under British Rule has resulted not merely from the removal of the previous checks on population. I have described at some length the Public Works of the Native Dynasties. Temples, shrines, and tanks form the sole memorials of their rule. The British Government has directed its energies to less conspicuous and less ornamental, but more useful enterprises. Besides its vast system of public embankments, hereafter to be described,

[169] Annals of Rural Bengal, vol. i. p. 333, 4th ed.

and on which it had expended £208,653 between 1804 and 1866, it has already laid out £1,350,000 on the new Orissa Canals (April 1871), and connected the most distant parts of the Province by well-raised roads. Of these, one great highway enters the Province at its northern extremity, and after intersecting each of its Districts, issues from it at its southern point. It joins Orissa on the north with Bengal and Calcutta, and on the south with the Presidency of Madras; forming a main artery from which veins radiate to right and left, connecting it on one side with the coast, on the other with Central India. This great highway constitutes a charge upon the imperial grant for Public Works; but there is also a network of roads maintained from local District funds. Roads, embankments, canals, and improved harbour communication with the coast, have combined with good government and absolute protection of person and property, to treble the wealth of Orissa, and to double its population under British Rule. But they have also combined to augment the cost of administration.

Amid all this material progress, the moral condition of the people has not been neglected. During many centuries Orissa stood forth not only as the most orthodox, but also as the most ignorant, of the Hindu Provinces of India. 'As stupid as an Uriyá' became a proverb with the acute inhabitants of the adjoining Gangetic delta. A more elaborate aphorism declares: 'The people of the extreme east of Bengal are not men, but the Uriyá is a beast. He climbs trees and jumps like a monkey, though he has no tail.' The Bráhmans had the monopoly of education, and they kept it strictly in their own hands. Nowhere else do the ancient caste rules exercise such an influence. Even at the present

day, in spite of our system of Public Instruction, presently to be described, the most ridiculous distinctions are maintained. Thus, men following precisely the same occupation are sometimes separated by so vast a social gulf, that the slightest bodily contact with each other brings pollution; and the higher cannot touch any article that the lower has handled, until it undergoes purification by being put down upon mother earth. I once had a party of palanquin-bearers in Orissa consisting of different castes. Not only was it impossible for two castes to join in carrying me; but each time that the different castes relieved each other, they had to place the palanquin on the road before the new relay would touch it. The higher sort[170] loathed the lower;[171] and beneath these latter there is a third class,[172] who hold the same degraded position to the intermediate sort as the intermediate ones do to the upper. To this day, when a professional astrologer enters a dwelling, the mats are all taken up to avoid the pollution of his touch.

On the Khurdhá estate the peasants give a curious reason for the absence of garden cultivation and fruit-trees, which forms a salient feature in that part of the country. In our own Districts, every homestead has its little ring of vegetable ground. But in Khurdhá one seldom meets with these green spots, except in Bráhman villages. The common cultivators say, that from time immemorial they have considered it lucky at a certain festival[173] for a man to be annoyed and abused by his neighbours. With a view to giving ample cause of offence, they mutilate the fruit-trees and trample the gardens of their neighbours, and so court fortune by

[170] Gwálas. [171] Báuris. [172] Páns.
[173] Answering to the Nashti-Chandra in Bengal.

bringing down the wrath of the injured owner. The Bráhmans highly approved of this superstition, as it practically left them the sole possessors of garden stuff, and raised the value of their produce. Throughout all Orissa under Native Rule, no one but a Bráhman might plant a cocoa-nut tree, and this most profitable of fruits is still to a large extent the monopoly of the priestly class. One of the missionaries at Cattack showed me with pride the first cocoa-nut tree that had been planted in the Province by non-Bráhmanical hands. It appears to be about thirty-five years old, and the Native Christian who had thus broken through the immemorial custom was regarded for many years as a man lying under the wrath of the gods. As no misfortune happened to him, however, and as his cocoa-nuts fetched the same price in the market as those of the Bráhmans, other native converts soon followed his example.

The missionaries have been the pioneers of popular education in Orissa, as indeed everywhere throughout Bengal. Their labours date from exactly half a century ago;[174] and during this period they have not only made a small population of converts, but they have, by schools and printing-presses, introduced a new culture and a new literature into the District Capitals of Cattack and Balasor. The Cattack Mission has chiefly received its Pastors from the Baptists of Derbyshire and Nottingham. It has thrown out offshoots to Pippli, and less permanently to Purí, the headquarters of Jagannáth. In Cattack alone the Native Christians number 1712 souls, including 658 children rescued from the famine of 1865–66. As a rule, they are despised by the Hindus and Musalmáns, and

[174] In April 1822, the Rev. William Bampton and the Rev. James Pegg arrived from England.

indeed they generally come from the lower castes. But individuals among them enjoy a high degree of respect from their well-known probity, combined with wealth or official position. Generally speaking, the Native Christian just manages to earn a livelihood in the lower walks of life ; although on the one hand there are a few isolated cases of comparative affluence, and on the other, some who have to be assisted out of the Mission Funds. If the famine orphans be excepted, missionary efforts have made but little progress in actually converting the people, although they have done an immense amount of indirect good.

But it would be in the highest degree unfair to except the famine orphans. These miserable creatures, the children of parents who had died of starvation, or who in the last extremity of hunger had deserted their offspring, formed six years ago a collection of scarcely animate puny skeletons. The mission door stood open day and night, and the officials contributed a weekly crop of famished children, whom they picked up at the relief depôts scattered throughout the District. Six years of good food and good training have made these strays and waifs of the famine one of the most interesting sights which I have seen in India. Two large Orphanages—one for boys, the other for girls—in Cattack city are thronged with clean and bright-looking young people, who have been educated on the ennobling Christian system, and trained in some bread-winning occupation, to enable them to play their parts reputably in life. The boys make capital carpenters, wheelwrights, upholsterers, workers in lacquer, blacksmiths, etc. The girls work industriously with their needle or at lacemaking, although it is much to be regretted that the absence of any large demand for their

little manufactures renders their labour less profitable than it might be. Nothing could be a fitter article for Charitable Bazars either in England or India than the pretty workmanship of orphans whom Christian benevolence has rescued from starvation, and the reverend missionaries at Cattack are always happy to receive orders for it. All the children except the youngest have to contribute in some way to their livelihood, and Government aids the Mission Funds by a monthly allowance for each.

Many of them are now entering on manhood and womanhood, and a number of couples have been married off. The missionaries very wisely prefer a quiet country life for their protégés, to the temptations incident to a large town. They have accordingly founded two peasant settlements of Christians not very far from Cattack,[175] besides a large farm or agricultural village in which to train the boys in husbandry. It should never be forgotten that India is strictly an agricultural country, and that, with the exception of a few towns, only the classes who have land are considered respectable. The early Roman Catholic missionaries clearly discerned this; and by attaching their converts to the soil, they have given their Settlements a permanency and respectability which contrast painfully with the social status of our Protestant converts. Much of the opprobrium attaching to the Native Christian arises not from his conversion, but simply from the fact that he is a nondescript man about the village, without a farm or cattle, who makes his living as a day-labourer, and thus inevitably takes the degraded position of the other landless low castes.

[175] One at Chhagán, a village in the Tributary State of Athgarh, on the opposite side of the Mahánadí; and the other at Khanditar, on the Kharsuá River, about ten miles distant from Jájpur.

Orphanages of not less interest, although on a smaller scale, flourish at Balasor. The American Free-will Baptists have here their Orissa headquarters, and, like their English fellow-labourers at Cattack, they have formed two out-stations or peasant settlements.[176] Balasor also contains a Roman Catholic Mission, presided over by the Rev. Father Sapert. This little community consists of a school and orphanage, with a Religious House for Roman Catholic ladies—Scotch and Continental—who have devoted themselves to proselytism. Our own missionaries lead a life of primitive simplicity, but they are comfortable and almost wealthy men, compared with the heads of the Roman Catholic Settlements in India. I found Father Sapert (a Belgian gentleman of high culture and some mathematical reputation in Europe) engaged in building a church absolutely with his own hands. He had as architect drawn the plan; as head-carpenter and mason, he had gone out with his little flock to the jungle, and cut the wood; explored the river-beds for limestone;[177] and was then busy in turning his garden into a brick-field, and devising mechanical appliances by which his young assistants might raise the beams up to the roof of the church. It seems to me that no impartial observer can learn for himself the interior details of any Missionary Settlement in India (to whatever form of Christianity it belongs), without a feeling of indignation against the tone which some men of letters adopt towards Christian Missions.

Our State efforts at education, although of later origin, are naturally on a more imposing scale. Govern-

[176] One at Santipur, near Jaleswar; the other a purely agricultural hamlet, at Metrapur in Nilgiri.

[177] *Guting*, the nodular limestone of Bengal and Orissa.

ment, not less than the missionaries, long found itself baffled by the obstinate orthodoxy of Orissa. Until 1838 no schools worthy of the name existed, except in the two or three little bright spots within the circle of missionary influence. Throughout the length and breadth of the Province, with its population of two and a half millions of souls, all was darkness and superstition. Here and there, indeed, a pandit taught a few lads Sanskrit in a corner of some rich landholder's mansion; and the larger villages had a sort of hedge-school, where half a dozen boys squatted with the master on the ground, forming the alphabet in the dust, and repeating the multiplication table in a parrot-like sing-song. Any one who could write a sentence or two on a palm leaf passed for a man of letters. In 1838 Government entered the field, and opened an English and a Sanskrit school at Purí. But these Institutions proved altogether unable to make head against the tide of ignorance and bigotry, and presently sunk beneath the flood. In 1841 we opened a higher class English school at Cattack, which, after a long series of conflicts and discouragements, still survives as the principal seat of education in the Province. During Lord Hardinge's Administration two vernacular schools were set agoing in 1845; another one in 1848; and in 1853 an English school was founded in Balasor, while the one at Purí was resuscitated.

The English reader would soon tire of this petty chronicle. But its very pettiness will enable him to realize more vividly than anything I could write how slow has been the growth of State Education in India. In 1854 arrived the famous Educational Despatch which was to bring Western enlightenment home to the Eastern races. Yet for several years afterwards, the increase of

schools throughout vast Provinces like Orissa has still to be counted by units. In three great Government estates[178] we managed, between 1855 and 1859, to set on foot nineteen elementary schools; but in the latter year the total number for all Orissa, with close on three millions of people, amounted to only twenty-nine. The truth is, the whole population was against us. Such little success as our schools obtained, they owed, not to the Uriyás themselves, but to the Bengali families whom our Courts and public offices brought into the Province. Thus, of the fifty-eight Orissa students who up to 1868 reached even the moderate standard exacted by the Calcutta University at its Entrance Examinations, only ten were native Uriyás, while forty-eight belonged to immigrant families.

The genuine Uriyá has not even yet quite lost his abhorrence of the infidel Government School. Many of the more orthodox elders still regard all that pertains to our system as hateful to the gods. The first Uriyá Bráhman who accepted service under the English Govermnent tried hard to overcome this national prejudice. Himself a subordinate Judge, he offered to prepare other Uriyá Bráhmans gratuitously for official posts. But it was with the greatest difficulty that he could get a single one of them to listen to his proposal. The present Inspector of Schools writes to me, as a strong proof of progress in Orissa, that 'a good many Uriyá Bráhmans have now accepted Government employ.'[179] As late as 1860, a learned Uriyá, on being appointed even to the orthodox post of Sanskrit teacher in our Purí school, was excluded for a year or two from

[178] Khurdhá, Bánki, and Angul.

[179] MS. Report by Mr. R. L. Martin, dated Midnapur, 25th March 1870.

the Bráhmanical orders, and stormy discussions took place as to whether he should not be formally expelled from his caste. To this moment the Court officials, after their public functions are over for the day, carefully renew their caste marks on their foreheads, and wash them off again every morning before coming to office.

The great increase of education since 1869, to which I shall presently allude, has, however, given a death-blow to this excessive influence of caste. In 1870, an Uriyá Bráhman held the post of Sub-Inspector of Police in Purí itself, within the shadow of Jagannáth, although a leather belt formed part of his uniform. Five years ago, a Bráhman who accidentally touched leather would have had to choose between public expiation or degradation and expulsion from caste. I have already mentioned the strong rural instincts of the Uriyás, and their aversion to city life,—an aversion so strong, that even when forced to seek employment in the towns, they hold it unlawful to take their wives with them. But the propriety of our Court officials bringing the female members of their families with them to the capital, has now become a question deemed capable of discussion. An English officer lately mentioned, in proof of the enlightenment of the people, that an Uriyá Bráhman 'was actually looking out for a suitable lodging for his wife in Cattack City.' Elderly Uriyás have more than once deplored to me the hopeless degeneracy of their grown-up sons, many of whom have actually no objection to wearing English shoes.

State Education has slowly become an accomplished fact in Orissa. In 1848–49 there were but 9 schools, with a total attendance of 279 pupils, out of a population of three million souls. During the next ten years the

schools had increased to 29, and the number of pupils to 1046. At the close of the third decennial period they numbered 63 schools, in 1868–69, with 4043 pupils. During the past two years, 1869–1871, the increase has been still more rapid. It is impossible to spread Vernacular Education without properly trained teachers, and until 1869 no machinery existed in Orissa for training teachers. In January of that year, Government opened a Normal School in Cattack City, which, during the brief period that has since elapsed, has done more to bring Education home to the peasantry than all our previous efforts. It instructs a body of picked youths just up to the standard required for making an efficient village Schoolmaster. These young men then disperse through the Province, and settle in the densely ignorant hamlets. Each teacher collects as much as he can in money and rice from the villagers who send their children to his school, and receives a stipend of half-a-crown a week from Government as long as he properly discharges his duty. In February 1870, fifty-eight primary schools of this sort were opened, and the Inspector officially estimates their annual increase at the rate of at least fifty per annum. Higher class instruction has advanced proportionately; and a knowledge of English, with those truer and higher conceptions which an English Education conveys, has at length penetrated to all the chief centres of population in the Province.

The results of these efforts now begin to disclose themselves in a degree of mental activity altogether foreign to the traditional character of Orissa. The Cattack Mission Press, the oldest in the Province, sends forth an unfailing stream of civilising literature; and other printing establishments, managed entirely by natives, now

keenly compete with it in the production of Uriyá works. Vernacular newspapers fight their party battles on the orthodox or reforming side, and administer hebdomadal flagellation to the Government. Old prejudices are broken through, vexatious restrictions are violently combated, and the extended desire for education more than keeps pace with the increase of our schools. Perhaps the most crucial test that could be devised is the degree to which the people use the Post Office. In 1865-66, 245,959 letters were posted; in 1870-71 the number rose to 348,872. The earnings of the Post Office tell a similar tale. In 1850-51, the postal revenue of Orissa was £1084; in 1855-56, £2538; and in 1860-61, £3808.[180] This represents the total Receipts of the Postal Department from all sources, including the allowance for official letters, and several other items not connected with ordinary postal work. The increased use of the Post Office by the public is more clearly shown by the sale of postage stamps, and petty sums received for unpaid letters and newspapers. In 1855-56 the total receipts thus obtained amounted to £665, 15s. 0d.; in 1860-61, to £1022; in 1865-66, to £1603; and in 1870-71, to £2128, showing an increase of more than threefold within fifteen years. These are the true statistics of Education. It is not by the mere number of schools or pupils that the results of Public Instruction should be judged. The past ten years of State Education have done more than the previous ten centuries to mobilize the people of Orissa, and to emancipate them from the slavery of superstition and priest-ridden ignorance.

[180] Memo. drawn up for me by Deputy Accountant-General, Bengal, dated 14th October 1871.

All these improvements in Government have, however, cost money. The expenditure on Administration has more than doubled since 1830, while we have debarred ourselves from any increase in the staple revenue of the Province. In 1836, after a minute investigation of the capabilities of each District, we leased out the land for thirty years at a fixed rent. Since then, cultivation has enormously increased, and the purchasing power of money has diminished. For example, in Cattack District, the Collector reports that seven-eighths of the land set down as cultivable, but not cultivated in 1836, have now been brought under the plough; and that large tracts which were then returned as altogether uncultivable, have since then been reclaimed. Yet the fixed Land Tax rendered it impossible to enhance Government rent which the people pay for their land. Thus, in Purí District, in which the cost of administration has increased from £12,357 in 1829, to £22,843 in 1870, the Land Tax amounted to £44,707 in 1829, and to only £45,438 in 1870–71. The other two Districts, Cattack and Balasor, must be treated together, as frequent interchanges of jurisdiction have taken place. In 1830 the total cost of their administration was under £150,000; in 1870 it exceeded £316,852. Yet during this same period the Land Tax of the two Districts has remained almost stationary; being £114,258 in 1829–30, and £122,848 in 1868–69. To add still further to our difficulties, the thirty years' leases expired in 1866, just as the Province was staggering under the effects of the famine. It would have been harsh in the extreme to have increased the burdens of the people at such a moment, and the Settlement was renewed for another thirty years at the old rates. Practically, therefore, we have shut ourselves

off from the principal source of increased revenue in an Indian Province during sixty years, from 1836 to 1896. During the same period the cost of governing Orissa will have increased at least threefold. Nor does this by any means represent our whole difficulty. For unhappily we have fixed the Land Tax not in grain, but in money; and although the Treasury Officers may receive the same number of rupees, yet, owing to general decline in the value of silver, their purchasing power will have decreased to less than one-half during the sixty years. I shall afterwards adduce proofs of this.

With the cost of administration thus constantly on the increase, and our principal source of revenue absolutely at a standstill, Government has had to invent various new forms of taxation. The most recent, and to the Indian mind the most vexatious of these, is the Income Tax. It would be out of place for me to enter on any general exposition of what I conceive to be the defects of this mode of raising revenue in India. But English writers too generally overlook the chief objection to it; namely, its unprofitableness in a country of small husbandmen. In Purí District, for example, with its population of more than half a million souls, the total of all the incomes exceeding £50 per annum, and liable in 1870 to the Income Tax, is returned at only £106,500. With the Tax at its present rate, $1\frac{1}{24}$th per cent., a territory of 2504 square miles, and a population of 540,995, are therefore subjected to the harassment of revenue underlings of the worst type, in order to gather a tax which, without allowing for the cost of collection, barely exceeds £1000 a year. In Cattack District, $1\frac{1}{4}$ million of people yielded as Income Tax on trade-profits only £2504 in 1868-69; and the half million of Balasor only £610.

But our chief plan for increasing the revenue, so as to bear some proportion to the augmented cost of administration, has been the Salt Duty. At first there can be little doubt that this impost bore very heavily upon the people, and led to great discontent. But the stationary Land Tax, combined with the immense rise in the price of agricultural produce, has now made the Salt Tax bear very lightly on the bulk of the people. Orissa is a great salt-producing country, with many facilities for illicit manufacture, and good opportunities for smuggling the cheap salt of the adjoining Presidency of Madras. A large amount of salt reaches the consumer that does not pay revenue to the Orissa authorities. Nevertheless, the actual amount of salt for local consumption *that does pay duty* averages 15¼ pounds per head per annum on the whole population of the three Districts. Several medical men have told me, both in official communications and in private letters, that they attribute the low state of health in India to an insufficient consumption of salt. Other doctors controvert this view, but at one time I felt inclined to share it, and the Salt Statistics which I obtained for European countries tended to confirm it. Thus, Neckar estimated the consumption in the French Districts exempted from the Salt Tax at 19½ pounds per head a year. More recently, Mr. J. R. M'Culloch found the annual consumption in England to be 22 pounds for each person. But, on a more full inquiry, I found it necessary wholly to eliminate these European estimates from the consideration of the question. For in European countries it is practically impossible to separate with anything like certainty the amount of salt consumed by the local population from that employed in manufactures.

Even the use and exportation or importation of salt provisions introduces an element of error, much of the saline matter being extracted from such food in boiling, and thrown away. In countries like England, where the chemical works consume enormous quantities of salt, any comparison is wholly fallacious.

The facts about Orissa are briefly these: Salt, as made at the Chilká Lake, costs eightpence a hundred-weight, and the Government duty is eight shillings and eightpence. This is the Bengal rate, the highest known in India. In the Madras Presidency adjoining Orissa the duty varies, but at present is 4s. 10d. per cwt. Now there can be no doubt that the Bengal rate presses more heavily upon the backward and comparatively poor Districts of the Orissa delta than anywhere in Bengal itself. If, therefore, there is any single spot in India in which the maximum duty bears too heavily on the people, it is in Orissa. I find that among the general population of Bengal, who can certainly afford as much salt as they wish to use, the consumption varies from half an ounce to one ounce per diem in different Districts. In the Bengal jails the allowance found ample for adults is half an ounce per diem, and no complaint of insufficiency has ever been made either by the prisoners or the medical officers. As a former Assistant Magistrate who had charge of a considerable jail, I can myself bear witness to its sufficiency both for the health and the contentment of the prisoners; and the Sanitary Commissioner for India who has most carefully studied the question, supports it by an array of facts with which no single officer's experience can compare. In Bombay, where the duty is lower than in Bengal, the jail allowance is the same, although the general population consumes

about an ounce. This latter is the quantity allowed to the Sepoys, many of whom, however, have also a wife and children to supply. In the North-Western Provinces the allowance to prisoners is one hundred grains per diem, or less than a quarter of an ounce, while the general population consumes only from ninety to a hundred grains. It must be remembered, however, that the inhabitants of that territory are a wheat-eating population, and that wheat contains nearly four times the percentage of salts which are found in rice, the staple food of Orissa and Lower Bengal. In the Panjáb, the prison allowance is 219 grains, or half an ounce avoirdupois per head, while the free population consumes only 180 grains per diem. The Inspector-General of Jails for this Province thinks that a reduction of forty or fifty grains per diem might be made without injury to the health of the prisoners. But the Panjábís are also a wheat-eating population, and derive four times the quantity of salt from their ordinary food than a rice-eating people do, as in the Deltas of Lower Bengal and Orissa. In Oudh the prison allowance is a hundred grains, or less than a quarter of an ounce; but the Inspector-General, although he reports that no visible injury from this small quantity can be detected upon the health of the prisoners, is disposed to recommend an increase to two hundred grains, or nearly half an ounce, a day. In the Central Provinces, the free population consumes rather under half an ounce, and the Jail population rather more than a third of an ounce. Formerly, prisoners in these Provinces received only one hundred grains per diem; and the local Inspector-General attributed the obstinate form of bowel complaint then common, to an insufficient supply of salt, and states that a great improvement has taken place since

its increase. Throughout all India, therefore, with the exception of Madras, the quantity of salt found necessary to keep the Jail population in good health, varies from 100 grains to 240, that is to say, from less than a quarter of an ounce to half an ounce. Rice-eating peoples, like those of Bengal and Orissa, require half an ounce, while a wheat-eating population, like those of the North-Western Provinces, find less than a quarter of an ounce sufficient.[181]

In Orissa, where the Bengal rates fall heaviest, the average consumption exceeds half an ounce. I have Returns for each of the three Districts for a series of years. In Cattack District the average quantity of salt used during ten years amounted to thirteen and a half pounds per head per annum. In Purí, during the eleven years ending 1866–67, it was thirteen and a quarter pounds. In the third District, Balasor, during the eleven years ending 1864–65, it exceeded nineteen pounds. The average consumption of the three Districts, therefore, during the period which ended in the great famine of 1865–66, amounted to fifteen and a quarter pounds a head per annum.[182] Each person obtained fifty-two ounces a year more than the maximum quantity of 192 ounces, which is found sufficient to keep a rice-eating population in good health, even in jail. The lowest consumption of which I have obtained Statistics since the famine year, allows, as nearly as may be, twelve pounds per head throughout Orissa. But, as shown above, the average consumption during a series of years amounts to fifteen and a quarter, or two-thirds of an ounce per diem.

[181] I have taken the above Statistics from the Report of the Sanitary Commissioner with the Government of India, for the four months ending April 1870.

[182] Inundation Committee's Report of 1866, pp. 95, 278, and 373.

On the one hand, it must be remembered that the prison allowance of half an ounce a day is the quantity found to be sufficient *for adults;* while in Orissa the average consumption by every individual of the population, from the middle-aged man in full work to the youngest baby, amounts on an average to two-thirds of an ounce of salt which actually pays duty. On the other hand, a considerable proportion of the Orissa consumption goes to feed the cattle. Yet not so large a proportion as might be supposed. The illicit manufacture along the coast, and the inevitable smuggling of cheap Madras salt across the Customs Line, introduces a large quantity of salt into the Province which does not appear in the above calculation. In a country where salt can be made anywhere down a long maritime strip by merely scraping a hollow in the ground, illicit manufacture has always existed, and will always continue to exist. Allowing, therefore, for the supply from this source, and for the small quantity which children consume, there is an ample allowance for the cattle without reducing the consumption of the population below half an ounce per adult a day. After a most patient inquiry, I find it impossible to come to any other result than that the general population in Orissa can afford to use as much salt as keeps the criminal classes in good health, under the unfavourable conditions of prison life.

The above Statistics omit Madras. But in the Madras Presidency the duty is so low that the population can afford to consume salt, not according to the necessities of the human body, but in the liberal and rather wasteful way in which we consume it ourselves. The allowance to prisoners is in that Presidency one ounce, and the quantity consumed or disposed of by the general

population from rather over half an ounce to nearly two and a half ounces, in different Districts. For physiological purposes, however, this consumption appears from the general average throughout India to be unnecessarily large. The actual consumption, moreover, is much less than the rates just mentioned, as considerable quantities of the cheap Madras salt are smuggled into other Provinces, such as Orissa, where the duty is higher.

The expediency of raising the Salt Tax is one of those questions which, at short recurring intervals, perpetually come up for decision in India. With an almost stationary Land Revenue and a rapidly increasing expenditure, the Government has no alternative except a series of chronic deficits or an enhancement of its miscellaneous imposts. Now the Salt Duty is precisely the impost which, according to one set of Indian financiers, is susceptible of unlimited increase; while, according to another, it already bears most oppressively upon the people. It would not be necessary to raise the present maximum duty, but merely to equalize the rate throughout India. There can be no doubt that such a measure would be more productive than the Income Tax; and by getting rid of differential duties and the internal Preventive Service, it would further save a large outlay annually to Government. It is also equally clear that it could be carried into effect without any of the popular clamour to which the Income Tax gives rise. That outcry proceeds from the educated and the well-to-do classes; and these are the very classes whom the enhancement of the Salt Duty would not affect. A labourer with a wife and three children must consume, for purposes of health, forty-eight pounds a year, representing, at the retail price of three halfpence a pound, an annual total of six shillings.

The moderately well-off native clerk on twenty-five shillings a week, may probably consume double this quantity for himself and his dependents, or at the rate of twelve shillings a year. But the Salt Duty to the labourer on two shillings a week, amounts to an Income Tax of seven per cent. on his whole yearly earnings; while the native clerk on twenty-five shillings a week, only pays one per cent. on his income for double the amount of salt. Any increase in the Salt Duty would therefore bear with disproportionate severity upon the poorer classes.

This is one way of looking at the question. But there is also another view of it. The wealthier ranks can be reached by many taxes which do not touch the mass of the people; and it is not unfair that at least one impost should fall with a heavy weight upon the practically exempted classes. Probably the fairest mode of raising an Indian Revenue would be a graduated Capitation Tax. But a Capitation Tax would be an exceedingly dangerous experiment for the British Government. The Salt Tax, however, acts in many important respects as a Capitation Tax would act, and at the same time avoids the perils which such a Tax would involve. No one, from the highest to the lowest, can avoid it, for salt is a necessary of life. Yet not even the poorest feels its direct incidence, and it gives rise to none of those clamours or agitations which direct taxation breeds. Nevertheless, it is impossible to take money from the people, under whatever disguise, without making the people so much the poorer. It is no valid reason for oppressing the masses, that the masses cannot make themselves heard. The well-to-do educated natives have a very prompt machinery for reaching the ear of England. They have

newspapers, petitions, memorials, public meetings in the Presidency Towns, Native Representatives in the Local and Imperial Councils. The masses have none of these engines of agitation; and when they are oppressed, they can only feel sore and remain dumb.

Government therefore is bound in a special manner to protect these silent millions who cannot protect themselves. But the question resolves itself into a very simple one of facts. Does the maximum Salt Duty anywhere prevent the people of India from buying a sufficient quantity of salt? If any such Province exists, it would be Orissa, where the people are as poor as in Madras, while they have to pay the maximum Salt Duty current in the rich Bengal Districts on their north. I have shown that throughout India the quantity of salt necessary to keep the Jail population in good health varies from a quarter to half an ounce a day. Excluding Madras, the highest allowance consumed even by a rice-eating prison population is twelve pounds per annum. Now, the people of Orissa, on whom the maximum rates fall heavier than upon any other Indian Province, consume over a period of ten years 15¼ pounds per annum; and the lowest return which I have obtained for any single year, even since the famine, is twelve pounds per head for every man, woman, and child of the population.

But while I think there can be no doubt that the peasantry of Orissa do obtain a quantity of salt sufficient for the requirements of the human body, I cannot shut my eyes to the fact that our system of Salt Duty does immense harm to the Province. In the first place, it deprives the people of what ought to be a great staple article of food. The unrestrained abuse of free fisheries has almost denuded the tanks and inland

waters of Orissa of their fish.[183] Every few years nets of a smaller and smaller mesh have to be resorted to as the finny tribes decrease in size. Inland waters which formerly supplied fine fish, now yield only sprats and minnows. But the lower reaches and estuaries of the great Orissa delta abound in a hundred varieties of edible fish. The climate renders it impossible to keep them in a fresh state long enough to reach the cultivated parts of the Province; and the high duty on salt renders it impossible to cure them. An eminent naturalist has observed,[184] 'That so great is the importance of fish to the enjoyment of the rich and the necessities of the poor, that man might with less inconvenience give up the whole class of birds and many of the mammalia, than be deprived of the finny tribes.'

I have heard two objections urged to my views on this point. The first is, that any system of drawbacks which would allow of the curing of fish with cheap salt, would lead to smuggling and give rise to a host of practical difficulties. One of these difficulties would unquestionably be, that, owing to the high duty on salt, it would pay people to cure fish with the duty-free commodity, and then dissolve the salt out again. But this might be overcome by a differential rate calculated so as to enable the fishermen to salt, and yet to render it unprofitable for the consumer to dissolve out the saline ingredients. I do not deny the grave practical difficulties of such a proposal; but Government has to consider whether it is not worth while to encounter and overcome these difficulties, rather than to continue to deprive the

[183] Report on the Fish and Fisheries of India, by Dr. Francis Day, M.D., Inspector of Fisheries for India, dated 17th September 1871.

[184] Quoted from Gmelins Linnæus, in the Inspector of Fisheries' Report above cited.

often famine-stricken population of the Delta of a great staple article of its natural food.

The second objection is, that even although the people could get salt fish, they would not eat it. Undoubtedly this is the fact as regards the Bráhmans and the high castes. But it is most certainly not the fact with regard to four-fifths of the population. All castes in Orissa below the *Karans*, or writers, would gladly use salted fish; and at this moment they consume great quantities of fish imperfectly cured in the sun, and more or less rotten. With the *Chásas*, or peasant population, who form the great body of the people, this is a favourite article of food; indeed almost the sole relish which they can afford to their monotonous rice diet. The husbandman stores up his supply of dry fish in reed baskets, and sparingly doles out the decomposing mass as a luxury to his frugal household throughout the year.

But this does not represent by any means the whole evil which our Salt Duty does to the Province. The Mahánadí—literally the Great River—affords a magnificent highway for the products of Central India to the Orissa seaboard. Every year the Tributary States and Central Provinces export large quantities of rice, grain, oil-seeds, cotton, and other rural commerce to the coast, in exchange for salt. But the Salt Duty of Bengal and Orissa so greatly exceeds the rate in Madras, that the peasantry of inner India find it cheaper to send their goods by a long and costly land route to the Madras District of Ganjám, on the south of the Chilká, than to float them down the Mahánadí to Cattack on the Orissa side of the Customs Line. To a certain extent smuggling counteracts this cruel policy of the rulers, and the Commissioner reports[185] that at one short length of the

[185] Report on the Administration of Imperial Customs, 1867–68. O.R.

Customs Line we lose at least £20,000 of revenue a year from such practices. This he declares is 'the lowest estimate: probably the real loss considerably exceeds it, and will increase yearly.' It is as if we had thrown a wall across one of the finest trade routes in the world. Our Orissa Salt Duty practically blockades the Mahánadí just as effectually as if we had filled it up with rocks; and I could not, while gazing on its magnificent expanse, help a feeling of sorrow that the devices of man should thus counteract the bounty of nature. The slow and costly carriage to which the people of the Central Provinces have to resort, makes the contrast the more painful. The Tributary States afford no roads for continuous cart traffic; and even after the caravans of pack-bullocks have reached the Madras coast, their loads obtain no facilities for exportation, such as the canal system of Orissa and its harbour at False Point afford.

The present Commissioner of Orissa,[186] and indeed all the local officers, feel this more acutely than any outsider can. But questions of the Imperial Revenue come into play, and render reform very difficult. So long as Orissa Salt pays the Bengal Duty of 8s. 8d. a hundredweight, and the adjoining District of Ganjám pays the Madras Duty of only 4s. 10d., no change can be hoped for. Either the Madras rate must be raised or the Orissa duty must be lowered, if the Mahánadí is to become what it ought never to have ceased to be, the great trade route from Central India to the coast. I do not think it can be said that the Madras peasantry are less able to pay the Bengal rate than their neighbours in Orissa. At the same time it is impossible, from the Statistics given above, to resist the conclusion that the Orissa population

[186] *Vide* Mr. Ravenshaw's Salt Report for 1870–71. Para. 30. O.R.

manages to consume quite as much salt, even at the Bengal rate, as suffices for the necessities of the human body. The evidence, therefore, tends to show, not that the Orissa Duty should be reduced to the Madras rate, but that the Madras Duty should be raised to the Orissa level. Such a change would give a vast increase to the Imperial revenues. It would involve no new machinery for collection, and it would enable Government to do away in part with the costly internal Customs Lines. Such lines came down to us among the relics of the old days when India was split up into mutually hostile fragments; and they still survive as a wasteful anachronism between the Provinces of a well-knit Empire. An equalization of the Salt Duty is, I think, the only form of taxation which, in the very process of increasing the Indian revenue, would decrease the Indian expenditure. If it could be carried into effect, the question of Indian deficits would be laid to rest for many years, and the unpopular Income Tax would probably disappear. Meanwhile, our Salt Duty in Orissa not only deprives the people of what should be a staple article of their food,—an article which they might fall back upon in time of famine,—but it absolutely denudes the Province of its sole source of commerce, to wit, the trade of Central India *viâ* the Mahánadí River.

The Stamp Revenue forms the most elastic of our present devices for raising additional taxation. As the people become more civilised, they gain greater confidence in our Courts, and more frequently resort to them. In a subsequent Chapter I shall explain how a vast body of Private Rights has sprung up under our rule,—rights which involve an amount of litigation unknown in former years. We have substituted the calm action of Civil

Tribunals for the *agrestis justitia* of Native rule and the lawless oppression of the Marhattá times; and by creating a long series of private rights in the soil, we have developed an inexhaustible source of perfectly legitimate litigation. I by no means join in the English outcry against the so-called litigiousness of the Hindus. The growth of private rights has been so rapid under our rule, that if the people did not very freely resort to our Courts, it would be a proof either of hopeless apathy on their part, or of the corruption and unpopularity of our tribunals. The Stamp Revenue is the legitimate result of that system of Private Rights which we ourselves have created, and it now forms one of our most important sources of national income.

It is to such miscellaneous imposts as the Stamp Revenue and Salt Tax that the British Government of India has to look for the means of carrying on the Administration. The Native Dynasties trusted almost entirely to the Land Revenue. They managed to raise an annual income variously stated at from £406,250 to £570,750,[187] or say £450,000 a year, between the twelfth and the eighteenth centuries. This almost exactly corresponds, in figures, to the total Revenue which, by a great machinery of miscellaneous imposts, we now collect from the Province. In actual purchasing power, it amounted to seven times our present Revenue, and supported the magnificence of a Hindu Court, with a standing army, an opulent hierarchy, and a costly Civil List.[188] Under British rule, the Orissa Revenue barely suffices for the charges of the local administration.[189]

Had we dealt with the land as the Native Rulers

[187] *Vide* the preceding volume, pp. 323–325.
[188] *Id.* pp. 325–329.
[189] *Id.* p. 325.

did, and considered it the inalienable property of the State, the Land Tax might possibly still have sufficed. But under our more liberal policy of developing private rights in the soil, at the expense of the public burdens upon it, the Land Tax has become wholly inadequate to the cost of Government. In 1829–30, the Land Revenue of Orissa amounted to £158,965. In 1836–37, the Government leased out the Province for thirty years; and in 1867 the Legislature renewed that settlement for another period of thirty years. It now amounts to £168,286, and no further increase can be hoped for till the end of the century. Meanwhile, the bare cost of Local Government amounts to £422,000 a year;[190] and before the end of the century it will in all probability exceed half a million. Before the expiry of the present leases, the Land Tax will yield less than one-third of the merely local expenditure. If, therefore, the Province is to pay its way, Government will be under a constant necessity of raising additional revenue by means of the miscellaneous imposts which are so distasteful to an Indian people.

This difficulty was partly inevitable. No materials have come down showing the precise proportion of the produce of the soil which the ancient Orissa Dynasties took. Many conflicting traditions exist on the subject, and doubtless the proportion varied in different parts of the country. The rich delta of Orissa could afford to pay a larger share to the Prince than less productive arid tracts; and, as a matter of fact, the Rájá of Parikud, who still maintains his fiscal independence, takes exactly three-fifths of the crop.[191] He, however, like other Hindu Princes, dealt with the cultivators direct. We, on the

[190] For details see last vol. p. 325. This includes interest on the Orissa Canals, and the charge for the Native Regiment at Cattack.

[191] *Id.* p. 34.

other hand, have allowed a whole series of intermediate holders, each with his own set of rights, to grow up between the State and the actual husbandmen; and practically not one-tenth of the harvest reaches the public treasury. The following figures will, I think, establish this fact. The three Orissa Districts contain 7723 square miles, or 4,942,720 acres. At least one-half of this, or say two million and a half of acres, are under cultivation.[192] The value of the ordinary crops varies from 10s. to £1, 16s.[193] Taking the low average of 15s., the total value of two million and a half of acres would amount to £1,875,000; and a Land Tax of ten per cent. would yield £187,500. Now the actual Land Tax from all sources amounts to £168,286. While, therefore, a Hindu Prince like the Rájá of Parikud takes three-fifths as his share of the annual produce of the soil, the British Government obtains not one-tenth of it.

This difference is partly due to the liberality of our Land Settlement, partly to the growth of intermediate holders; but it is also in a large degree due to the fact that we take our rent in money and not in kind. The rent-roll of an Orissa estate, when offered for sale in the market, is now found, as a rule, to be double its Government Land Tax. Of course, extreme instances occur on

[192] Making allowance for recent transfers, the Settlement Papers showed the area under cultivation to be 1,045,227 acres in Cattack; in Balasor 463,816; in Purí 616,960—making a total of 2,126,003; besides 198,097 temporarily uncultivated, but cultivable. I have also a Return prepared between 1840-42 for Purí and Cattack, with a later one for Balasor, which, after allowing for land then unmeasured, etc., gives a total, as near as may be, of 2,400,000 under cultivation. The Collectors report that the cultivated area has greatly increased since then.

[193] *Vide* the Section headed 'Out-turn of Crops' in my Statistical Accounts of Balasor and Cattack, and the Section headed 'Rents' in my Statistical Account of Purí, Apps. I. II. and IV. Also Statistics of Rice Cultivation for all the Districts of Bengal, issued by the Agricultural Society, Calcutta.

both sides, but native gentlemen and native officers have alike assured me that this is below rather than above the average. In settling with the landholders in 1837, the Company allowed gross reductions to about one-third of the rent for the charges and risks of collection.[194] The extension of cultivation, with the natural rise in rents, has doubled the landholders' profits during the past thirty-three years; so that, as above stated, the proprietor now generally realizes at least as much again as he pays to Government. The landholder, in his turn, collects from the cultivator as rent from one-half to one-quarter of the actual yield of the land, or say one-third. Government, therefore, as it only receives at most one-half of the landholders' collections, cannot get more than one-sixth of the net yield of the soil.

In reality it receives much less. For it takes its share, not in grain, but in silver, which is constantly depreciating in value. This circumstance further decreases by nearly one-half the share which the State actually obtains, and reduces its one-sixth to one-tenth or one-twelfth of the produce of the land. I have shown, on what I believe to be irrefragable evidence, that the purchasing power of silver in India has fallen during the last five hundred years to one-seventh of what it was in the thirteenth century.[195] I propose, very briefly, to prove that this decline, at least in Orissa, is still going on, that it has proceeded at a rapid rate during the present century, and that at the present moment it continues unchecked.

The period of anarchy which preceded our accession

[194] The theoretical allowance was ten per cent., but the various extra allowances raised it to between thirty and forty per cent. in Orissa. *Vide* Vol. I. p. 53.

[195] *Vide* Vol. I. pp. 326–329.

in Orissa in 1803, has left few memorials behind it. But I have brought together, from the archives of the adjoining District of Ganjám, a series of papers which illustrate the state of prices a hundred years ago. My materials commence with the year 1778, and they show the average price of unhusked rice, except in years of famine, to have been about 8d. a hundredweight, and the price of husked rice 1s. 4½d.[196] In Orissa the cost was always about one-third less, and indeed Ganjám imported a large portion of its rice supply from Purí and Cattack. This would show the price of paddy in Orissa to have been under 6d. a hundredweight; and when we obtained the Province in 1803, 6d. a hundredweight was considered rather a high price. A shilling per hundredweight is now reckoned a cheap rate for paddy bought on the field at harvest-time. In 1771 a bullock sold for 10s., which would now cost at least 24s., and a sheep from 1s. to 1s. 3d., whose present price would be at least 4s. The whole evidence to be derived from the Official Records shows that the average price of staple commodities towards the end of the last century was less than one-half their present rates. The wages of labourers bore the same proportion, and palanquin-bearers cost 4s. a month who now receive 8s.

We have, however, another means of ascertaining the decline in the purchasing power of silver. From time immemorial Orissa, like some other parts of India, has used a local currency of *cowries*. When the Pro-

[196] In 1778 the price of paddy in Ganjám varied from 7d. to 7¾d. per cwt.; 1779, 7d. to 7¾d.; 1780, 7¾d. to 8¾d.; in 1781 (a year of scarcity) it rose to 8½d.; 1782, 9¼d.; 1783, from 9¼d. to 9¾d.; in 1784 (a year of famine) it sold at the almost nominal rate of 11d.; in 1785 it fell to 8d.; 1786, 8¾d.; 1787, 8¾d. to 9¾d. After that year followed a series of famines and disturbances, which completely disorganized prices, and for a time put a stop to importations. The years from 1789 to 1792 are still spoken of as the period of the first Ganjám famine under our rule.

vince passed into our hands in 1803, the public accounts were kept and the revenue was paid in these little shells. In granting liberal leases to the landholders, however, we stipulated that they should henceforth pay their Land Tax in silver, and fixed the rate of exchange at 5120 *cowries* to the rupee. For many years after our accession the proprietors bitterly complained that the rupee was worth much more than this rate, and that, in order to make up their revenue in silver, they had to pay the village banker from 6400 to 7680 *cowries* per rupee. This was alleged as one of the causes of the Khurdhá rebellion in 1817; and although the hardships may have been exaggerated, the common rate seems to have been from 6000 to 7000 *cowries* per rupee. But during the last seventy years the value of silver has steadily declined, and a rupee now only purchases 3584 of these little shells.[197] In 1804 the official exchange was 5120, and the practical rate of exchange from 6460 to 7680.

The purchasing power of silver in Orissa has, therefore, declined to one-half during the last seventy years, whether estimated in the local currency or in the staple food of the Province. The depreciation has of late been accelerated by the vast amount of specie expended upon the irrigation enterprises, and by the large payments in silver which have been made to Orissa for rice and other products since the canals opened up the sea-board. These great works practically date from the year 1860, and during the twenty years between 1850 and 1870 prices have risen from one-third to one-half. Thus, to take the town of Balasor, which exhibits the rise in its ex-

[197] The rate, of course, varies, but I am informed that 14 *gandas* or 56 cowries per pice has of late been the ruling exchange in the larger marts. This gives 3584 to the rupee.

treme degree. In 1850, the best unhusked paddy sold at 168 pounds per rupee; in 1870, at 84 pounds, or just one-half. Fine cleaned rice was 100 pounds per rupee in 1850, 80 pounds in 1860, and 40 pounds in 1870. Common rice has not risen quite so much, as the cultivation has in the meanwhile extended. It was reported at 120 pounds per rupee in 1850; 100 pounds in 1860; and 70 pounds in 1870. Wheat sold at 33 pounds per rupee in 1850; 29 in 1860; and 18 in 1870.

The rate of wages has risen in proportion. In Balasor, unskilled labourers earned a penny halfpenny a day in 1850; they now get from twopence halfpenny to threepence. Carpenters' wages were in 1850 threepence a day; they are now fivepence farthing. Smiths and bricklayers could be had at threepence three farthings in 1850; they now earn sixpence. If we take the two other large cities in Orissa, Cattack and Purí, the same results appear. In Cattack, day-labourers received twopence farthing in 1850; they now obtain threepence three farthings. Smiths got fourpence halfpenny in 1850; they now earn sixpence. Bricklayers' wages have risen more rapidly, or from twopence farthing in 1850 to sixpence in 1870. In Purí, the money wages are officially returned at the following rates: Unskilled labourers in Purí town, fourpence a day; in the rural parts, twopence halfpenny. Their wages twelve years ago were twopence halfpenny in the town, and three halfpence in the country. In 1860, smiths and carpenters got threepence three farthings in the town, and twopence in the country; they now get sixpence a day in the town, and threepence three farthings in the country. Bricklayers, who used to get fourpence halfpenny in the town twelve years ago, now get sevenpence halfpenny.

Within the last twenty years, therefore, the price of food in the large city of Balasor has almost doubled; and throughout the whole Province, so far as Statistics exist, it has risen by about one-third. The rates of wages have also increased by upwards of one-third during the same period. That these results are due, not to any altered degree of pressure of the population on the land, or in their demands on the food of the Province, is clear from the following fact. While town wages, which are paid in money, have thus risen, agricultural wages, which are paid in kind, have remained absolutely the same. The field-labourer has always earned a lower wage than unskilled workmen in the towns. In 1850 he received from twelve to fifteen pounds of unhusked paddy per diem according to the locality; and at the present day he receives exactly twelve to fifteen pounds according to the locality. *All wages that are paid in money have risen by more than one-third; all wages that are paid in kind remain the same.*

These, it should be remembered, are the results of only twenty years. During this brief period, silver has lost more than a third of its purchasing power, whether expressed in wages or in the staple food of the people. Indeed, one District Officer reports to me that the price of food has doubled within twelve years. The public revenues have been depreciated to at least one-third of their former purchasing power, whether expressed in wages or in grain. I have already shown that the value of silver, as estimated in the popular or cowrie currency, has fallen thirty per cent.[198] since 1804, even calculated at the rate of exchange which Government then arbi-

[198] *I.e.* $\frac{3584}{5120}$ = 70 per cent., showing a decrease of 30 per cent.

trarily fixed in its own favour. If computed according to the actual rate of exchange then current, it has decreased by one-half. Had our first administrators contented themselves with taking payment in silver at the current rate of the cowrie exchange, the Orissa Land Tax would now have been double what it is at present. But had they resolved to collect it at a grain valuation, according to Akbar's wise policy, it would now be more than double; for the prices of food have rather more than doubled since 1804. The system of paying the Land Tax by a grain valuation, appears to me to be the best means of giving stability to the Indian Revenues. In Orissa, it would have enabled us to reduce the Salt Duty to the easy Madras rate; it would have saved the necessity of an Income Tax altogether; and, by shorter leases, it would now yield as large an income as the total which we extract by a variety of vexatious burdens.

The experience of the past few years shows that the fall in the value of silver still continues.[199] Every morning the Government of India wakes up poorer than when it went to bed the night before. A lakh of rupees in 1850 represented a great deal more in actual purchasing power than a lakh of rupees in 1860; and a lakh of rupees in 1860 represented a great deal more than it did in 1870. Apart, therefore, from the cost of increased efficiency in the Administration, the English in India must inevitably go on increasing the miscellaneous public burdens so obnoxious to the people, as long as the Land Tax is calculated in silver. The one remedy is a grain valuation, either struck annually or revised at intervals of about five years. It might be possible to suggest

[199] For some very striking statistics on this head, *vide* the recent Return of prices of food grains in the Panjáb Government Gazette.

several sources of revenue, such as a duty on *Pán*, the aromatic leaf that the people chew instead of tobacco, which would be less unpopular than the Income Tax. But miscellaneous imposts, however unobjectionable in themselves, are mere makeshifts and stopgaps in a fiscal system like that of Bengal. The secret of making India pay is the due conservation of the Land Tax; and in order to conserve the Land Tax, it must be estimated, not, as in Orissa, upon the so-called rent of the land-holder, but upon the actual produce of the soil. Until this necessity is realized and acted upon, every few years will bring a fresh set of financial embarrassments. Under the present system, without adding a single Judge, or Magistrate, or Officer of any sort to the Civil List; without granting one of the administrative improvements which India's rapid advance in civilisation suggests; without undertaking any of the rural public works which a tropical country so urgently requires; without allowing a rupee for bringing our material of war up to the modern European standard; the Indian Government will find at the end of each ten years the revenue which sufficed at the beginning of the decade, altogether insufficient at the close of it.



CHAPTER VIII.

THE CALAMITIES OF ORISSA.

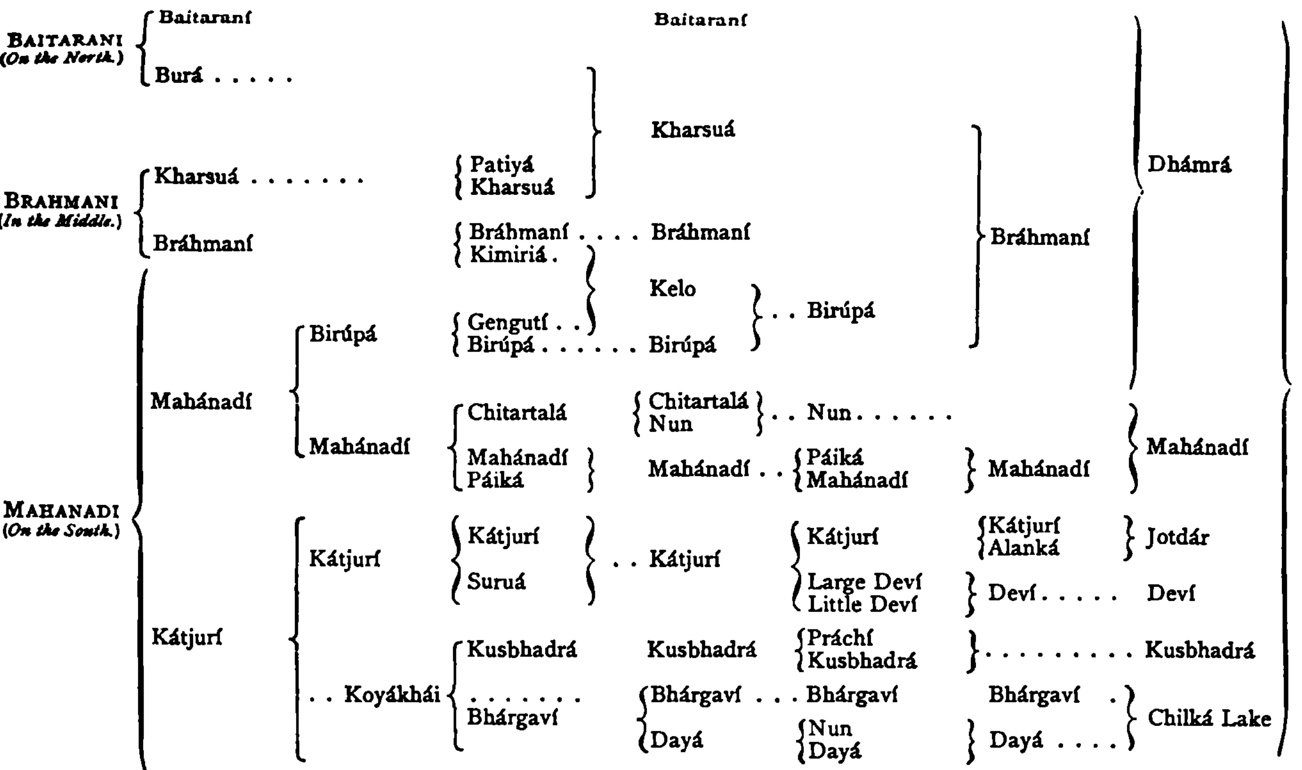
THE problem of Government in Orissa is no longer how to save it from foreign invasion or domestic tumult, but how to protect it from floods. The Control of the Water Supply has become the one great question under British Rule. Throughout the Musalmán and Marhattá periods, Orissa history finds itself so filled with miseries inflicted by man, that it has not time to pause over the lesser calamities caused by nature. Our first half century of Government effectually put a stop to the former; and now, in the stillness which has succeeded, the magnitude of the latter has forced itself upon the administrative mind. We have freed the Province from invasion and violence only to find ourselves in the presence of more potent enemies; enemies whom no treaty can bind, and with whom it seemed for a time that no human foresight or energy could cope. The floods and famines which loom out like giant spectres from the dim panorama of the past, have now to be met face to face. Wars form the staple of Orissa history, but a great battle, to which even its long monotone of bloodshed affords no precedent, is now going on—a battle between the indomitable English will and the devastating rivers which have hitherto scorned the control

of man. Engineering science has accepted the Orissa delta as the arena of strategic movements on as vast a scale, and of far more permanent consequence than the military combinations of the late European war. The issue to be fought out is no dynastic squabble or mere frontier strip, but whether some three millions of human beings shall spend their lives, as heretofore, in chronic peril of death by famine.

Orissa derives its water supply from a double source. It enjoys a local rainfall averaging 62½ inches per annum, and it receives the accumulated waters which its great river system brings down from Central India. Recent experiments tend to show that 35 inches a year, even in the drier climate of inland India, render it possible to rear the rice-crop. The local rainfall of 62½ inches, therefore, amounts itself to an adequate water supply for rice cultivation, the staple of Orissa. Of the two calamities which at brief recurring intervals afflict a tropical people, namely, famine from drought, and famine from floods, the Uriyás have least to fear from the former. Thus, in Balasor District, only four great droughts have occurred within the memory of the present generation,—namely, in 1836, 1839, 1840, and 1865; and in three of these years prices did not rise to the height to which a year of flood sends them up. I shall afterwards explain the limits within which this statement can be received. For, while floods as a rule cause more suffering and scarcity than droughts, a total absence of rain produces the climax of misery.

But it is the devastating rivers which the Uriyás have chiefly to fear. The water supply which pours down from the interior table-land upon the Orissa delta has hitherto defied control. Three great rivers collect

the drainage of 57,000 square miles of Central India, and gradually converging towards the coast, dash down their accumulated waters within thirty miles of each other upon the Cattack District. The velocity which they had obtained in descending from the inner table-land, finds itself suddenly checked upon the level delta, and they break up into a hundred distributaries, like a pitcher of water thrown violently on the ground. These distributaries roam over the delta, struggling by a thousand contortions and convolutions towards the coast, and forming a network of rivers which, after innumerable interlacings and bifurcations, generally re-unite with one of the three parent channels as they approach the sea. Only a Map on a very large scale can give a complete idea of their innumerable twistings, combinations, and divergences. But the following scheme, along with the details to be found in the Appendices, may furnish some idea of their routes through the delta :—


BAY OF BENGAL.
BAITARANI (On the North.)
Baitaraní
Burá . . . . .
Baitaraní
Kharsuá
Dhámrá
BRAHMANI (In the Middle.)
Kharsuá . . . .
Patiyá
Kharsuá
Bráhmaní
Bráhmaní . . . . Bráhmaní
Kimiriá .
Bráhmaní
Kelo
Gengutí . .
Birúpá . . . . . . Birúpá
. . Birúpá
MAHANADI (On the South.)
Mahánadí
Birúpá
Mahánadí
Chitartalá
Chitartalá
Nun
. . Nun . . . . . .
Mahánadí
Páiká
Mahánadí . .
Páiká
Mahánadí
Mahánadí
Mahánadí
Kátjurí
Kátjurí
Kátjurí
Suruá
. . Kátjurí
Kátjurí
Large Deví
Little Deví
Kátjurí
Alanká
Jotdár
Deví . . . . .
Deví
Kusbhadrá
Kusbhadrá
Práchí
Kusbhadrá
. . . . Kusbhadrá
. . Koyákhái
. . . .
Bhárgaví
Bhárgaví . . . Bhárgaví
Dayá
Nun
Dayá
Bhárgaví .
Dayá . . . .
Chilká Lake

Besides these three great rivers—namely, the Mahánadí, the Bráhmaní, and the Baitaraní—three others of less importance enter Orissa farther north.[1] The drainage of an area aggregating 63,350 square miles is thus accumulated on the narrow Orissa strip, between the mountains and the sea. The Mahánadí, literally the Great River, rises in Central India, and after collecting the rainfall of 45,000 square miles, pours down on the delta through a narrow gorge just above Cattack City. It illustrates with peculiar clearness the biography of a great Indian river. In its first stage it runs on a lower level than the surrounding country, winding through mountain valleys, and skirting the base of the hills. During this long part of its career, it receives innumerable streams and tributaries from the higher country on both banks. So far, it answers to our common English idea of a river. But no sooner does it reach the delta than its whole life changes. Instead of running along the lowest ground, it gradually finds itself hoisted up until its banks form ridges, which rise high above the adjacent country. Instead of receiving confluents, it shoots forth a hundred distributaries. In short, it enters upon its career as a deltaic river, and presents a completely different set of phenomena from those we are accustomed to in European streams.

This change arises from a simple cause. The rapidity of the current acquired among the mountains and table-lands, brings down a vast quantity of silt suspended in the water. But no sooner does it reach the level delta than the river finds its current checked; the farther it goes the more sluggish it becomes, and the less

[1] The Subanrekhá, the Burabálang, and the Kánsbáns. See my Stat. Ac. of Balasor, App. II. p. 34.

able to carry down the sand with which it is charged. It accordingly deposits the silt in its bed, and during floods upon its banks. By degrees, therefore, the bed and the banks gradually rise, until the river forms a sort of canal, running along a higher level than the adjacent country. The silt accumulates more rapidly in the bed itself than upon the banks, which only get an occasional overflow; the channel gradually shallows, and its capacity as an outlet for the waters, which pour into it from above, diminishes. The same process goes on in every one of the distributaries into which the parent stream breaks up, and their total discharging power becomes less and less adequate to carry off the water-supply to the sea.

The deltaic rivers of Orissa form, therefore, a network of high level canals, raised above the surrounding country, and unable to furnish an outlet for the water poured into them at their heads. During summer their upper channels in the interior table-land dwindle to insignificance; the five chief rivers sending down only 1690 cubic feet per second, upon Orissa—a quantity which their deltaic distributaries are quite adequate to carry off. But in the rainy season the same rivers issue from the table-land in tremendous floods, aggregating 2,760,000 cubic feet per second—a volume that greatly exceeds the discharging capacity of their deltaic channels. Thus, while the Mahánadí dashes down 1,800,000 cubic feet per second in full flood, the whole of its distributaries in Orissa can only discharge 897,449 cubic feet. Only one half of the flood, therefore, can find an outlet through the deltaic distributaries to the sea. The other half bursts over the banks and sweeps across the country.

As the rivers run along the highest levels of the delta, so the lowest levels lie about half-way between

each set of their distributaries. The country, in fact, slopes downward from the river banks, and in time of flood it is impossible for the inundation to find its way back again into the river. The waters cover the crop-land long after the river itself has subsided. They painfully search out the lines of drainage, accumulating in swamps, drowning the harvest, and poisoning the air with malaria, until they dry up or slowly reach the sea. I have in Chapter II. given a sketch of a single flood in Purí District. But a more accurate idea will be obtained of the devastations which the rivers commit, by bringing together the statistics of that same flood for all Orissa.

Throughout the three Districts 1050 square miles[2] were destructively inundated, the waters lying from three to fifteen feet deep in most parts for thirty days, and in some places during sixty. A population of 1,308,365 souls suddenly found their homesteads submerged,[3] and crops to the value of £3,109,472 were destroyed.[4] These figures speak for themselves, but they do not tell the whole truth. The Province was just emerging from the terrible famine of 1865-66; the people had used up their last remnants of food, and were looking forward to the approaching harvest as their one chance of safety, when the rivers suddenly sprang like furious beasts of prey upon them, and drove more than half the surviving population out of house and home.

Such floods are alike disastrous to the people, and costly to Government. The inundation of 1866, which I have just described, by no means stands alone. Only eleven years before, an equally ruinous outbreak of the

[2] 673,726 acres. *Vide* Inundation Committee's Report, pp. 102, 300, and 382.
[3] Inundation Committee's Report, pp. 65, 91, 225, 297, and 340.
[4] *Idem*, pp. 103, 301, and 383.

rivers had taken place, which, although of shorter duration, buried the country deeper in water. The British Government in India is a great landlord, and, like other country gentlemen, depends for its income upon the welfare of its tenantry. Any rural disaster tells immediately upon the Land Tax, and the floods, which every few years desolate Orissa, involve large remissions of rent. During our first twenty-seven years in the Province (1803–4 to 1830–31), £65,094 were written off from this cause alone. But such remissions proved wholly inadequate to meet the evil. As we began to govern more minutely, the calamities of the people pressed more forcibly upon the conscience of British officials, and during the next twenty-one years (1830–31 to 1851–52) they remitted £91,889, in consequence of losses which the husbandmen had sustained from floods. No evidence exists to show that the actual loss was greater during this period than in the previous one; but with every improvement in the Government, the administrative mind finds itself in closer contact with the people, and has more acutely realized their sufferings. Accordingly, during the next fifteen years (1852–53 to 1866–67), we remitted no less than £105,536 from this cause alone.

This, however, by no means represents the cost of Orissa floods to the Indian Government. British humanity could not stand by and witness the calamities of the Province without some effort to avert them. As the rivers run on a higher level than the adjacent country, they inevitably, if left to themselves, rush over their banks; and once the flood-water has reached the lower levels, it cannot drain back again into the river beds above. In short, once the inundation has taken place, it has simply to lie upon the country till it evapo-

rates, or searches out an exit to the sea. If, therefore, the desolating rivers are to be controlled, they must be checked before they spill over their banks. Engineering science may ultimately solve this problem by forming large lakes above the point at which they enter the delta, so as to catch and conserve their flood-water before it dashes down on the plains. Or it may possibly get rid of the flood-water by opening up new distributaries, or additional channels of exit to the ocean. Such works, however, involve not only an enormous outlay of capital, but a degree of scientific skill unknown to Native Rule in Orissa. Practically, the only mode of controlling the rivers hitherto attempted, has consisted in artificially raising their banks. Great mounds of earth are constructed along their margins, and carried down for many miles on both sides. Under the Native Dynasties, when the communal system flourished intact, each village community had to look after the section of the river which passed within its jurisdiction. But no sooner did British Rule put an end to forced labour, than the villagers and proprietors along the banks discovered that this plan concentrated the cost of protecting the whole country on their own individual shoulders; and the communal or private embankments speedily fell into disrepair. The same thing took place in Bengal wherever we introduced our Courts.[5] In this, as in every other respect, we aggrandized the individual at the expense of the Commune, and sacrificed the old corporate duties of the Indian village to new private rights.

The Native system had never been a complete one. We organized no machinery for enforcing it, and under

[5] *Vide* curious paras. in Mr. Bayley's MS. Memo. on Midnapur District, dated 7th January 1852, pp. 387–391.

British Rule it completely broke down. Thus, if a single village along the river neglected its embankment, no amount of industry on the part of the communes, both above and below it, could save them from inundation. A single breach down the line was sufficient to cover the whole country with water, and landholders and villagers soon began to argue that it was useless for them to keep up their own embankments, while the next landholder or commune might neglect theirs. Government had therefore to step in; and it did so, not by enforcing the old communal duty of keeping up the embankments, but by maintaining the embankments at its own cost. This forms only one among a hundred instances of how charges which were purely local or communal under Native Rule have to be defrayed out of the public purse under our own. The cost, moreover, has been constantly on the increase. During the 48 years, from 1803 to 1851–52, the total amounted to £111,171, or £2316 per annum. During the next 15 years (1852–53 to 1866–67), it amounted to £97,482, or an average of £6498 per annum.

The end of this second period brings us to the year in which the system proved so disastrously inadequate, to the flood of 1866, which desolated the homesteads of 1¼ million of husbandmen. Adding the remissions of the Land Tax to the expenditure on embankments, I find that the total cost to Government during the 15 years ending 1866–67 amounted to £203,018, or an average of £13,534 a year. This forms a charge of eight per cent. of the total Land Tax of the Province. How ineffectual it is to cope with the evil, the inundation of 1866 above described attests. I have mentioned that, in some parts of Orissa, our Settlement Officers

had to exempt one-fourth of the area from taxation for its liability to floods, and the MS. Records show that, throughout the whole Province, they allowed deductions aggregating 7½ per cent. on the whole land revenue for this cause.[6] At present, in six Fiscal Divisions of Purí District, only 92,017 acres can be cultivated, while 50,475, or 78 square miles, are left waste for fear of floods.[7] The risk also decreases the rent of the land actually under tillage to one-fifth of the natural rates.[8]

Floods, however, form only one of the disasters incident to an uncontrolled water-supply. Nature has abundantly provided Orissa with rivers and local rainfall; but the water which, if husbanded, would last all through the year, is allowed, in the space of a few weeks, to rush off to the ocean in destructive floods. During the 35 years, from 1831–32 to 1866–67, Government had to remit £257,939 of its Orissa rental for Droughts alone, or £455,365 for the combined effects of Droughts and Floods.[9] Inundations are more common, and in general more destructive, than droughts; for, even if the rivers fail, the Province has its own local rainfall of 62½ inches a year in reserve. But a total absence of water produces the climax of misery. Nothing remains for the people but to die. In 1770, ten million peasants suffered the last agonies of hunger, and one-third of all Bengal lay waste and silent for twenty years. In 1866, the same Province suffered a famine equally severe, but

[6] Settlement Papers of 1835–37. See also *ante*, vol. i. p. 65. P. R., C. R., and O. R.

[7] Inundation Committee's Report, 1866, p. 90. The locality referred to is, however, exceptionally subject to inundation.

[8] *Ante*, vol. i. p. 65.

[9] Inundation Committee's Report, pp. 68, 232, 343.

our modern facilities of intercommunication, and liberal, although tardy, application of money, reduced the mortality to less than one-tenth of what it was in 1770, and only 750,000 British subjects died of starvation. One-fourth of the whole population of Orissa was, however, swept away.[10]

In a former volume I have dwelt at such length upon Indian famines that I do not propose to re-enter on the subject here.[11] When I wrote that book, it seemed to me that the sole chance of safety for the Indian peasant depended upon filling the English imagination with the fact, that 50,000,000 of our fellow-subjects pass their lives in chronic risk of death by starvation. For centuries, not a single generation of Indian husbandmen has gone through life without experiencing the extreme edge of famine. But during the past four years, the very measures on which I believed that the safety of rural India depended, but which I then despaired of ever seeing carried into effect, have become the avowed policy of Government. I pointed out that the preventives of famine belong to two classes; those that tend to avert natural scarcity, and those directed towards the development of intervening breakwaters between natural scarcity and its actual pressure on the people. Among the former, irrigation and drainage schemes stand first; among the latter, increased facilities of transport and distribution, such as railways, roads, and canals. 'These,' I said, 'are the specifics for famine.'[12] But the insight and firm will of the late Viceroy have converted such speculations into accomplished facts, and the only re-

[10] Report of the Famine Commissioners, folio i. para. 69, etc.
[11] See Annals of Rural Bengal, vol. i. 19–69. 4th ed.
[12] Annals of Rural Bengal, i. 55.

maining question is, how to economically carry out a general scheme of protective rural works. Instead, therefore, of putting together from the Orissa records an appalling picture of a single famine, it is better suited to the times that I should try to bring home to the public mind the permanent costliness of an uncontrolled water-supply. The floods and droughts of Orissa constitute a yearly charge upon the revenues of the Province, exceeding in absolute outlay three times the whole taxation which we derive from the million inhabitants of the Tributary States. During the last fifteen years, for which I have obtained the accounts, the bill stands thus :—

COST TO GOVERNMENT OF THE UNCONTROLLED WATER-SUPPLY OF ORISSA (1852–53 TO 1866–67).

Construction and Maintenance of Embankments, .	£97,482 [13]
Remissions of Land Revenue for Floods,	105,536 [14]
Remissions of Land Revenue for Droughts, .	51,856 [15]
Relief Works during five months of a single famine,	6,426 [16]
Rice, etc., during six months alone of that famine,	135,788 [17]
Total,	£397,088

This amounts to an annual charge of £26,472, or nearly 16 per cent. of the whole land tax of Orissa. Add to this the deductions, aggregating 7½ per cent. of the

[13] Compiled from the local Statistics in Inundation Committee's Report, pp. 70, 234, 235, 345.

[14] *Idem*, pp. 67, 68, 228, 229, 343. [15] *Idem*, pp. 67, 68, 233, 343.

[16] Report of Famine Commissioners, folio i. para. 407, part i. This includes only the sums spent from June to October in the four Districts of Purí, Cattack, Balasor, and Midnapur.

[17] *Idem*, para. 319. Price of 271,577 *mans* of rice 'received in local stores by Relief Committees,' at an estimated total cost of 10s. a *man*, inclusive of cost, distribution, etc. The amount actually issued between June and November was 253,146 *mans*, and Government obtained payment for a portion sold to those who could afford to pay. But allowing for the cost of extra officers, charge for steamboats in the monsoon, losses in landing, maintenance of depots, and the other expenses of the Famine, the sum given above is not excessive.

Government rental, allowed by the Settlement Officers, and the cost to the State of the uncontrolled water-supply amounts to close on 24 per cent. of the entire land revenue of Orissa, or say £40,000 a year.

This, however, represents only the actual money loss to Government. The chronic drain upon the resources of the Province, the misery, desolation, and disorganization of the rural community, caused by floods and famines, cannot be estimated in pounds sterling. Only six years ago, one-fourth of its whole inhabitants starved to death before the eyes of their English rulers. It happened that, in that very year, the Land Settlement of 1836 expired, and the rise in price of all rural produce rendered an increase of at least ten per cent. in the Government rental a lenient and natural measure. This enhancement would have still left the landholders a larger profit than the Settlement of 1836 did. But at the close of the famine, Government felt that it would be mere inhumanity to talk of raising the land tax of a depopulated Province, and the Settlement was renewed without enhancement for other thirty years, or till 1896. By this arrangement, the State loses over £16,828 a year, or £504,840 during the thirty years. Apart, therefore, from the enormous outlay on Relief Works and rice distributions during the scarcity, the single famine of 1866 forms a permanent charge on the revenues of £16,828 a year, or over half a million sterling during the currency of the present leases.

But any attempt to sum up even the pecuniary cost of an uncontrolled water-supply in an Indian Delta must either fall far short of the truth, or launch forth into general statements, startling in themselves, and very difficult to support by specific facts. We have seen that

the actual money loss to Government, under four or five well-ascertained heads alone, amounts to £56,828[18] a year, or one-third of the whole land tax. A very careful examination of the statistics of Orissa leads me to believe that the general loss of revenue owing to floods and droughts is nearer the double of that sum, or say £100,000 a year, being about two-thirds of the entire Government rental of the Province. The chronic misery which they inflict upon the husbandmen keeps the whole population in a depressed and backward state, and renders the accumulation of capital, or its application to rural improvements, out of the question.

The remedial measures consist of engineering efforts on a great scale, and involve a multiplicity of technical points which could not be profitably discussed here. I have given full details in the Appendices, and to these I would refer such readers as may desire to really understand the subject. We are endeavouring by three separate series of works to render famine an impossibility. The first is directed to the control of the water-supply, and tries by a more scientific organization of dykes and embankments to protect the Province from floods. How intensely unsatisfactory the embankment system has hitherto proved, may be gathered from the Appendices noted below;[19] and it must be confessed that very little has yet been done to improve it. One school of officers, indeed, disbelieves altogether in the power of embankments to deal with the difficulty; while it is patent to every one that even to give the present system a fair

[18] *I.e.* £40,000 + £16,828.

[19] App. I. Statistical Account of Purí, pp. 2-4, and Vol. I. of this book, pp. 63-75; App. II. Stat. Ac. of Balasor, pp. 36, 50 (Rents), and 51 to 56; App. IV. Stat. Ac. of Cattack, pp. 99, 117-119, 143. See also in the Index under the words Floods, Water-Supply, etc.

chance, will involve a scientific rearrangement of the whole works and a great outlay of public money. A Government with so many urgent demands upon its revenue may well shrink from committing itself to a vast expenditure, of which the results are still a matter of doubt. It is understood, however, that a well-digested scheme is now under consideration; and one of the objects of Lord Mayo's last fatal journey, was to visit Orissa, and examine the requirements of the Province with his own eyes.

The second series of efforts has borne more fruit. It consists of a great organization of canals, and is designed not so much to control as to husband the water-supply, and to ensure its economical application to the land. For the engineering details, I must again refer the reader to the Appendix.[20] The Orissa Canals perform two functions; they distribute the water-supply for irrigation, and they utilize it for navigation and commerce. The first necessity of such works is a uniform and trustworthy water-supply at the Delta head; and to secure this, three massive weirs,[21] one of them a mile and a quarter long, have been thrown across the three channels into which the Mahánadí splits, when it issues upon the plains through the gorge a few miles above Cattack. From the reservoirs thus formed, four great canals, or artificial rivers, radiate across the delta; three of them running at various angles eastwards to the sea. The fourth, or High Level Canal, skirts the foot of the hills northwards through Cattack and Balasor Districts,

[20] See my Statistical Account of Cattack, App. IV. pp. 109 to 117.

[21] One below Naráj, across the Koyákhái, the southern bifurcation of the Mahánadí; another across the middle channel, the Mahánadí Proper, at Jobrá, just below Cattack City; the third across the Birúpá at Chandwár, the northernmost of the three channels.

and thence across Bengal District of Midnapur, till it debouches on the Huglí River, 15¾ miles below Calcutta.[22] Of its total length of 250 miles, about 75 miles are now open (1872); and its first section of 36 miles, between the Birupá and Bráhmaní Rivers, will alone irrigate 89,000 acres, by means of seventeen distributary channels aggregating 113 miles. The canal next in importance[23] connects Cattack with tidal waters, forming a great trade route to the new sea-port at False Point, and capable of irrigating 385 square miles of land. It was opened throughout its whole length of 42½ miles on the 29th May 1869. The other two canals[24] will furnish trade routes through the southern part of the Delta to the sea, and irrigate enormous tracts of land.

This vast organization of artificial rivers is the work of the last ten years. The East India Irrigation Company undertook by private English enterprise to do for the Orissa peasant what none of its Dynasties, native or foreign, had ever ventured to attempt; to free him, namely, from the chronic peril of drought and famine. But before the Company could finish a single one of their canals, the terrible disaster of 1866 fell upon the Province; and during the next few years Government itself realized the responsibility of preserving its people from death by starvation. Accordingly, on the last day of 1868, the State took over the whole works from the Company at an estimated price of £941,368; and since then it has spent another half million sterling. On the 31st March 1871 the Capital Account stood at £1,274,822.

[22] *Vide* Stat. Ac. of Cattack, App. IV. pp. 110–112, 114.
[23] The Kendrápárá; *vide* Stat. Ac. of Cattack, pp. 112, 113.
[24] The Taldanda and Machgáon; *vide* Stat. Ac. of Cattack, pp. 113, 114.

Even the small part of the work already completed forms a guarantee against the extremity of famine. The people have taken the water in small quantities since 1866; but the slowness of the Indian peasant to adopt innovations, and the high rates for water fixed by the Company,[25] prevented anything like irrigation on a large scale. In 1870–71, however, a protracted drought thoroughly awakened the husbandmen to the dangers they ran, in not using the precious fluid which English capital and science have now brought within their reach. The Commissioner of the Province[26] firmly grasped the situation, and insisted upon Government reducing the rates for water to two shillings an acre. Before the end of the year, the husbandmen had placed a hundred thousand acres under irrigation; and even this area, although insignificant with the present capabilities of the canals (1872), would have sufficed to take the extreme edge off a famine. It represents an out-turn of at least a million and a half of cwt. paddy, or 750,000 cwt. of husked rice, while the whole quantity which Government, by its utmost exertions, could throw into Orissa during the famine of 1866, amounted to only 175,000 cwt.[27] Even an unfinished canal, therefore, affords a four times better safeguard against famine in Orissa than all the costly efforts of Government, after the scarcity has once set in. At the rate of one pound of rice *per diem*, for children and adults, the produce of this first attempt at irrigation would have fed half a million of people daily during the fatal five and a half

[25] At first ten shillings, afterwards five shillings an acre.

[26] Mr. T. Ravenshaw, C.S.

[27] '10,000 tons,' from which 'an allowance of at least ⅛ must be made for short weight.'—*Famine Commissioners' Report*; para. 318.

months; or *ten times the number which State Charity, whether gratuitous or in return for light labour, relieved.*[28]

But the Canals have another and a not less important aspect. The third series of efforts to free Orissa from famine is directed neither to the control nor the husbanding of the water-supply, but to rendering the crops of other provinces available for it in time of dearth. The silting up of the rivers has intercepted its natural means of communication with the outward world.[29] Its fine sea-board and spacious estuaries have for more than a century ceased to be the resort of commerce, and during the six months of the summer monsoon no vessel has approached its coast. In the Appendices I have set forth a system of Famine-Warnings; but a scarcity seldom declares itself with appalling severity till May, and before the most watchful official can pronounce the existence of Famine, the south-west gales have set in. The miserable Province finds itself left to its fate, cut off from the rest of the world, or, to use the words of the Famine Commissioners, in the condition of a disabled ship at sea with no provisions on board. A year of dearth may happen in Bengal as in Orissa; but, in Bengal, railways and roads toil day and night in bringing food from the parts which have suffered least to those which have suffered most, and so prevent the natural scarcity from falling with its full weight upon the people. Indeed, wherever adequate facilities for transport have been created, Government may, as a rule, leave the distribution of the national harvest to the laws of supply and demand, and confine its efforts to actual relief works.

[28] The daily average was 52,686; of whom 15,155 received relief in return for light labour on Public Works.

[29] See *ante*, Vol. I. pp. 313, 314; Vol. II. pp. 40, 43.

But in the Orissa Famine of 1866, the difficulty was not so much to feed the absolutely destitute, as to import grain in quantities sufficient for the general wants of the Province by direct Government agency.

Its third series of preventive works, therefore, have been directed to breaking through this isolation. The High Level Canal will form a cheap road between Orissa and Bengal, tapping the river systems of both, and rendering the resources of each available for the wants of the other. During the last few years, moreover, a thorough re-examination of the sea-board has taken place, and sites for harbours, formerly known to only a few individuals, have grown into public ports. Among them, False Point stands first; but the whole coast has been surveyed, and the capabilities of any of the Orissa estuaries may now be learned from the new Government charts.[80] False Point derived its name from the fact, that ships running northward frequently mistook it for Point Palmyras, a degree farther up the coast. It juts out on the north of the Mahánadí estuary, as an impregnable natural breakwater against the south-west monsoon. An anchorage, land-locked by islands and sandbanks, lies behind it, and forms the harbour from which two channels run inland, connecting it with the river system of Orissa and the provincial capital. A detailed description of its history and capabilities will be found in my Statistical Account of Cattack.[81] Here it will suffice to say, that, till within the last eight years, False Point Harbour was little known, and almost unused. Although only two days by steam-

[80] For the minor ports of Orissa, see App. IV. pp. 100, 106, 107, 108; App. I. pp. 12, 13; App. II. pp. 41, 42, 69. It remains an open question whether the Dhámrá is not yet destined to be *the* harbour of Orissa, App. IV. p. 107.

[81] App. IV. pp. 101 to 106.

boat from Calcutta, no regular communication existed, and a few shipments of rice in the cold weather by native vessels formed its only trade. Horsburgh, in his Sailing Directions, treats it as a beacon to be avoided rather than as a harbour to be resorted to, and dismisses it with a brief inaccurate notice. About 1862, the newly-started East India Irrigation Company discerned its capabilities, and an enterprising French Firm in Calcutta established an agency for the export of rice. But for several years the arguments against False Point Harbour seemed irresistible. When the traveller reached it, he found himself in a fever-stricken, jungle-buried creek, with no villages or local population, several days' journey from any large town, and with scarcely a practicable channel inland. Colonel Rundall, however, the Engineer to whom the Orissa peasantry owe more than to any other Englishman for their deliverance from chronic peril of famine, strongly insisted on its capabilities, and the events of 1866 proved him to be right.[82] False Point Harbour formed the main entrance by which food was thrown into Orissa during the dearth, and the Famine Commissioners urged its claims upon Government. During the years which have elapsed since then, the harbour has been re-surveyed and deepened, the channels have been clearly buoyed off, and the Kendrápárá Canal has opened a great highway between it and the capital of the Province. Much remains to be done, particularly with regard to the bars at the entrance of the inland channels, but False Point is already recognised as the best harbour on the whole Indian Coast between Cal-

[82] I would here express my thanks to Colonel Rundall for the many valuable materials which he has supplied, and for his kind personal assistance with regard to the engineering details given in my Statistical Account of Cattack.

cutta and Bombay. Steamers of large burden resort to it in the height of the monsoon, and the maritime isolation of Orissa has ceased.

All this has cost money. During the last three years, Government has spent as much upon the single item of Canals for Orissa[83] as the total revenue derived throughout the same period from the Province. The outlay upon the control and distribution of the water-supply, and upon roads, harbours, and other facilities for transport, already amounts to about 1½ million sterling since the famine; and to complete the present works, along with a supplementary scheme for embankments, will probably cost not less than half a million more.[84] These two millions, at 4½ per cent., represent an annual charge of £90,000, more than half the Government rental of the Province, or over 19 per cent. of its entire revenue, amounting to £464,868 in 1870, a year of income tax. Unless, therefore, the works themselves can be made to pay the interest on their cost of construction, the deliverance of the Orissa population from famine will saddle the Indian Empire with about two millions of public debt, and a yearly payment of £90,000 sterling. Under such a system, Members of Parliament will continue to adorn their vacation speeches with pictures of the great Eastern Empire sinking waterlogged with debt, and Indian Financiers will be driven despairingly from one impost to another, in order to raise the taxation required to keep things going for merely the current year.

Yet the experience of similar enterprises in the past,

[83] From 31st Dec. 1868, the date of purchase, to 31st Dec. 1871. It should be remembered, however, that this sum also includes the section of the works lying in Midnapur.

[84] No statistics are yet available for anything but a guess on this subject.

holds forth but little hope of their being immediately remunerative. Thus, in the case of Canals, many years elapse before the people learn to take the water. The strong conservatism of the Indian peasant, and his obstinate clinging to the ways and customs of the past, give an innovation no chance. He goes on, year after year, trusting to the accidents of the season to water his fields, till suddenly a famine comes. Then, indeed, a rush is made upon the canals, and thousands of acres are irrigated from them. But not till some hundreds of thousands of families have been reduced to beggary or to actual starvation; till large remissions of the Land Tax and costly relief works have become necessary; and till the whole rural economy of the Province has been thoroughly disorganized. Meanwhile, during the long intervening years, the neglect of the husbandmen to use the water has prevented the canals from paying the interest on the capital invested in them; and forced the Government to levy that sum with the cost of their maintenance by some new and unpopular tax.

So far as can yet be foreseen, the Orissa Canals promise to be no exception to the rule. I have given the detailed statistics in an Appendix.[85] With the works in their present unfinished condition, it would be hazardous to speculate on the ultimate earnings of the canals, and there are several very encouraging features in the progress towards solvency which they have already made. But it seems most unlikely that they will pay the full interest on their cost of construction for many years to come. The same difficulty takes place in other Indian Provinces. Protective works on a great scale are admitted to be absolutely necessary to save the people

[85] Stat. Ac. of Cattack, App. IV. pp. 116, 117.

from famine; and until they are granted, Government goes in daily peril of being called to witness the extermination of its subjects. Yet, after they have been constructed, the peasantry delay till too late to make use of them, and meanwhile their cost, both capital and interest, has to come out of the Imperial Exchequer.

This is one of the hundred difficulties which beset English Rule in India, and for which no solution has hitherto been found. A civilised Government cannot stand by and witness its people dying by hundreds of thousands of hunger; yet, in the present state of rural India, Government cannot construct the requisite protective works without the risk of national insolvency. As education spreads among the masses and stirs the peasant intellect, this difficulty will no doubt grow less; but meanwhile, how is the Indian Government to save its people from Famine on the one hand, and itself from bankruptcy or the necessity for excessive taxation on the other?

One school of Indian statesmen, with the late Viceroy at their head, believe that they have found an escape from the dilemma in a compulsory water-rate. They hold that the local community, for whose protection a canal has been made, should not be allowed to shift its cost to the shoulders of the taxpayers in distant Provinces, who can derive no benefit from it. That if the local community delays to take the water, it should nevertheless be compelled to pay the interest on what is, in the strictest sense of the term, a local public work. Such a provision, they maintain, involves no more hardship than the liability of every householder in a town to pay the municipal water-rate, whether he uses the water or not. Lord Mayo proposed, moreover, to levy such a

rate only when the people have neglected to take the water for five years after it has been absolutely brought to their fields, and only in places where it can be proved that the cultivator's net profits will be increased by the canal *after paying the irrigation rates.* There must be a clear gain to the husbandman by his taking the water, or Government cannot force him into the transaction. So liberal a condition could never be attached to a municipal water or drainage rate, like those to which we are accustomed in towns. Science can only *presume* a benefit to the general body of the citizens from sanitary measures; but before the Indian Government would propose to levy a canal-rate at all, the benefit to each individual must be absolutely *ascertained.*

But, indeed, the whole land-system of India is based upon the principle that, when the profits of the soil increase, independently of the cultivator's outlay or exertions, the rates levied by Government shall rise. Now, supposing that the canals were brought not by the enterprise of man, but by the hand of God. For example, if a great river suddenly took its course through the district, Government would, as a matter of course, and without raising a single murmur of discontent, enhance the land-rates at the next settlement. The people would acknowledge the right of the State to do so, whether they used the water or not. Yet, surely, this right applies with tenfold force to an artificial river or canal, found to be absolutely necessary as a protection against famine, and whose construction depends upon Government obtaining the guarantee of a general rate from the fields through which it passes.

On the other hand, a strong opposition, led by Lord Napier of Magdala, holds that such a rate would

not only be oppressive, but that it would defeat itself by rendering the whole peasantry inimical to canals and irrigation works. Several years of anxious inquiry ended in a Bill being framed to give effect to the principle. Last year, 1871, it came on for discussion by the Legislative Council, and after obstinate fighting on both sides, the Legislature applied it, under careful restrictions, to the Panjáb.

But the general problem of how to protect the Indian husbandmen from famine, without overwhelming the Indian Exchequer, still remains unsolved. In the Appendices I have endeavoured to show how a system of Famine Warnings might be organized; and the foregoing pages have set forth the bad economy of an uncontrolled water-supply. In Orissa alone, the single famine of 1866 swept away one-fourth of the people, and will cost Government £504,840 in the following thirty years. During the preceding fifteen years the State had paid out £40,000 per annum, or 24 per cent. of its whole rental from the Province, as the current expenses of floods and droughts. The losses of the people cannot be reckoned under ten times that sum, and their sufferings cannot be computed in money at all. Similar devastations go on in other parts of India, and Government is powerless to stop them, except by an expenditure so vast as to leave no alternative except bankruptcy or excessive taxation. Meanwhile, whatever may be the fate of other Provinces, the work is being rapidly accomplished in Orissa. A few years more will see its long afflicted peasantry delivered from the chronic peril of death by starvation, and from the other calamities incident to an uncontrolled and unhusbanded water-supply.



CHAPTER IX.

THE VILLAGE SYSTEM, AND GROWTH OF PRIVATE RIGHTS IN THE SOIL.

THIS volume has dealt with the material results of our administration, and the physical difficulties which surround it. But an account of a Bengal province would be onesided and misleading, which did not distinctly recognise the existence of another aspect of Anglo-Indian Rule. The great public works with which we have dotted the country will last our time and disappear. The silt of the delta will cover over our roads and railways, as it has covered over the temples and palaces of preceding dynasties. The fortresses on which science has lavished her ingenuity will noiselessly sink down into jungle-buried, shapeless heaps of brick. The rivers will swallow up our iron-girded bridges, or leave them high and dry across their deserted beds—massive screw-pile monuments of a Cyclopean age, scarring the bright face of the rice-crop. The Canals themselves will fill up and lie level with the surrounding fields, like the irrigation works of the Babylonian and Assyrian monarchies before them. The deltas and dry places which English capital and science have covered with homesteads, would then return to arid wastes or swamps; and travellers may one day question whether these malarious regions ever supported a human population, just as at present they speculate on the deserted cities of the Tigris.

We call these our 'Reproductive Public Works,' but the slenderest blade of grass has more elements of reproduction and duration in it than our most solid edifice of iron and stone. It is by what we have implanted in the living people, rather than by what we have built upon the dead earth, that our name will survive. The permanent aspect of British Rule in India is the growth of Private Rights. During the past century, not a single Englishman has left his mark on rural India, who has not gone through life penetrated with the duty of ascertaining and conserving the rights of the people. Our early administrators found themselves surrounded by institutions and a system of land usages which the progress of society in Europe had left far behind. In some parts of India these institutions survived more intact than in others, and a long series of ethnical upheavals and migrations had brought about the widest diversities not only in neighbouring Provinces, but in adjoining Districts. The local student of Indian land-rights found himself baffled by a hundred anomalies, conflicting usages, and exceptions to any conceivable rule. Even patient observers despaired of unravelling the tangled mass, and sought for a clue not so much in the actual facts as in the theoretical systems of the Hindu and Muhammadan Law. But, as I have elsewhere explained, the Brahmanical doctrines of Manu and Yajnavalkya bear scarcely a closer relation to the actual land-law of Bengal than the Codex Theodosianus does to the present land-law of Turkey;[1] while, on the other hand, the Muhammadan conquerors never succeeded in really forcing their system on the races of India. The local researches of our early administrators, fragmentary and

[1] Annals of Rural Bengal, i. 372, 4th ed.

inconclusive as they may be, are worth all the theories spun out of the Kurán and the Hidáyah.

In the following pages I endeavour, as promised in a previous volume,[2] to set forth the rights of the various classes interested in the soil, from evidence collected from the rural records. Orissa furnishes a specially favourable field for such an attempt, as the archives of the native period were formally made over to our first Commissioners, and carefully studied by them.[3] A succession of able administrators tested the information thus derived, with the actual facts that lay around them, and have left us the result in a number of letters and minutes, which sometimes form unconscious masterpieces of research.[4] In Orissa, moreover, we see many distant stages of human society spread out before our eyes, each with its more or less developed system of rights, from the Family Groups of the Kandh highlands to the absentee landlords of the lowland British Districts.

A serious danger lurks, however, in this very affluence of types. One is constantly tempted to infer connection from contiguity, to mistake resemblance for relationship, and to elevate sequence in point of time

[2] Annals of Rural Bengal, i. 372, 4th ed.

[3] Minute by Secretary to the Commissioner, dated 15th October 1821, para. 6, etc.

[4] The early official records which I have chiefly used are those of Mr. James Hunter, who took over the Southern Division of Orissa from the Marhattás in 1803; Mr. Deputy-Collector Melville, Mr. Ker, Mr. Forrester, Mr. Stirling, sometime Secretary to the Commissioner of Orissa, afterwards Commissioner himself; and Mr. Wilkinson. I have already expressed my obligations to Mr. Stirling's historical essay, in vol. xv. of the Asiatic Researches. The following pages will show how much I am also indebted to his official writings. For the sake of brevity, I quote his principal paper, drawn up in his capacity of Secretary to Commissioner, as the 'Minute of 15th October 1821.' With its Appendices, it covers 108 folio pages, and is enriched with copies of grants, deeds of sale, and other documents belonging to the Native Period.

into development or cause and effect. The allurement of dwelling on the similarity of usages in Europe and India also besets the inquirer. It would doubtless give a wider interest to his work, were he to illustrate the points which the Aryan Village Systems in the extreme east and west have in common; or to trace the resemblance between the mode of election by exclusion, as practised by the Kandh mountaineers and the Tanistry of the Scoto-Irish Celts. Sir Henry Sumner Maine has shown how valuable and interesting such comparisons may be made. But they demand a wider knowledge than I possess; and in writing these pages, a constant conviction has filled my mind that England will arrive at a true knowledge of India only by the concrete study of individual localities. A time for safe synthesis and theorising will come in due course, but meanwhile the most solid service which an Indian investigator can render is a careful collection of facts.

The simplest form of rural organisation in Orissa is the Kandh hamlet. In 1841, when this people came under our care, each tribe or collection of families had a right to as much land as it could occupy, and each family to as much land within the tribal limits as it could cultivate. Priority of occupation in the case of the tribe, and priority of tillage in the case of the family, formed the Origin of Right. Such a system implies a vast surplus of land. Thirty years ago, in Districts actually parcelled out among the tribes, less than one-eighth part was cultivated, while the other seven-eighths remained 'open under few limitations to the first occupant.'[5]

I have spoken only of Tribal and Family rights, for the truth is, that in the Kandh scheme of society the

[5] Macpherson's Report, Part v. sec. 4.

Individual nowhere appears. The Household formed the ultimate social unit, and the House Father its lawgiver and representative. 'The outward order of Kandh society,' wrote our first officer who studied them, in a passage which I have already referred to, 'all its conditions, its texture, and its colouring, necessarily derive their distinctive character from the ideas which produce or which spring from this remarkable system of Family Life. It is a Kandh maxim, that a man's father is his God, disobedience to whom is the greatest crime, and all the members of a family live in strict subordination to its head until his death. Before that event a son cannot possess property of any kind. The fruits of his labour and all his acquisitions go to increase the common stock; and the form and sense of Family unity are further preserved by the remarkable usage, according to which all the sons of a house (with their wives and children) continue, while their father lives, to share the patriarchal board prepared by their common mother.'[6] On the death of the father, each son becomes a separate Family Head, inheriting an equal share of the land and agricultural stock which the joint industry of himself and his brethren had accumulated during his father's lifetime.

As Individual Rights never developed on the one hand, so neither did anything like a national government, or even a strong tribal federation, on the other. The soil belonged indefeasibly to the Kandhs; but it belonged to them not as a nation, nor as a cluster of tribes, nor as a multitude of individuals, but as a number of separate families. The Family Unit admitted of no rival either above or below it. It neither disintegrated into Individual Rights, nor coalesced into a federal

[6] Macpherson's Report, Part. v. sec. 3 and 2.

government. No king or chief representative existed, who could put forth any claims to the soil, or levy rent or taxes in any shape. As each family had its head, so, for the convenience of public business, had each Hamlet and Tribe. But these latter had neither emoluments from their office, nor any machinery for enforcing their authority; they were simply the representatives of the Family Heads, and presidents in their councils. They lived by the actual cultivation of the soil, just like the other Family Heads. No stronghold or armed retainers raised them above their neighbours; and their sole property was the share which, on their father's death, they had received of the ancestral fields.[7]

Inter-tribal wars, and the nightly fear of wild beasts, rendered the country unsafe for isolated households. The Kandh Families accordingly built their houses in little groups, and so hamlets or Associated Homesteads sprang up. These Associated Homesteads resemble, in certain fundamental points, the Hindu Villages of the adjoining plains. Like them, they consisted of a cluster of agricultural families, each of whom had a right of occupancy in its hereditary land. I say *of occupancy*, for the abundance of waste land made nomadic tillage universal among the Kandhs;[8] and the idea of ownership went little further than the right to occupy and cultivate as long as the possessor chose to do so. As in the Hindu Village, the associated families acknowledged a Headman, who held his office by a half-elective, half-hereditary title; and in both, the community consisted of two sharply demarcated classes,—to wit, the agricultural families, and certain households of landless and semi-servile handicraftsmen.

[7] *Ante*, p. 74. [8] *Ante*, p. 77.

The Kandh Hamlet, therefore, exhibits the four essential characteristics of the Hindu Village. It consisted (1) of a group of agricultural families with rights in the soil; (2) living under a half-elective, half-hereditary Headman; (3) with the village lands lying around, and forming a territorial entity, or sort of jurisdiction, of which the associated homesteads are the nucleus; (4) and with certain alien low-castes attached to it, but destitute of any interest in the soil. The fact of each of these distinguishing features being predicable alike of the Kandh Hamlet and the Hindu Village, suggests the possibility that the rural organization of the Hindus was based less upon Aryan types, than upon the institutions of the pre-existing Indian races. We know that the Aryan invaders never penetrated in sufficient numbers into India to engross any large proportion of the soil. That throughout five-sixths of the continent, the actual work of tillage remained in the hands of the Non-Aryan or Sudra races; and that, even at a very remote time, husbandry had become as degrading an occupation in the eyes of the Aryan conquerors, as the tending of sheep was in those of the Mosaic Pharaohs. In Orissa, where Aryan colonization never amounted to more than a thin top-dressing of priests and nobles, the generic word of husbandman is sometimes used as the synonym for the Non-Aryan caste.[9] At this day, we see the acknowledged aboriginal castes of the mountains in the very act of passing into the low-caste cultivators of the Hindu Village, as soon as Hindu civilisation penetrates

[9] *Chása*, a cultivator, almost implies that the man is a *Sudra;* and in drawing up my list of castes, one native expressed surprise when I asked him to what caste the *Chásas* of his village belonged. 'Sudras, of course,' he replied.

their glens. They retain their old rural organization, with such modifications and additions as the introduction of the new or Hindu element demands; and it is reasonable to suppose that the pre-existing races of India did the same at the time of the great Aryan invasion, just as the Saxon husbandmen did at the time of the Norman Conquest. In primitive societies, it is the actual tillers of the soil who impress their type of rural organization on the land.

The actual facts, therefore, raise no antecedent improbability of the Hindu Village being the outcome rather of Non-Aryan than of Aryan types. Nor does this in any way invalidate the analogies which students of Comparative Land-Law have pointed out between the village system of India and that of Germany. For we shall presently see, that even if the Hindu Village were derived from an aboriginal Indian type, yet the Aryans have engrafted so many of their own institutions on the primitive basis as to account for such resemblances. Indeed, Sir Henry Sumner Maine himself says, that 'the true analogy between the existing Indian and the European system of tillage must be sought' not so much in any great fundamental principles, as in 'minute and multifarious rules.'[10] His honesty prevented him from supporting his views by evidence, however tempting, which is not really on his side; and he admits that the occasional removal of the arable mark from one part of the village to another, is in India a feature of Non-Aryan rather than of Aryan tillage.[11] It was, in truth, the natural and most profitable mode of agriculture, so

[10] Village Communities, p. 109, ed. 1871.

[11] *Idem*, 112. This, too, notwithstanding his general theory in the opposite direction, stated at top of p. 82.

long as a vast surplus of land existed; and to this day it has its counterpart in the nomadic husbandry of almost every thinly-peopled frontier in India. As in Europe, where individual rights have developed, the individual allows part of his farm to lie fallow; so, in India, before individual rights had developed, the Village Community or Associated Families allowed part of their communal lands to lie fallow.

But between pointing out the analogies of the Hindu to the Kandh village, and rearing a theory of development thereon, there is a wide step, and one which I have no wish to take. Such an enterprise is beset with the danger of elevating into special types, features common to many races unconnected with each other, and which would have naturally resulted from any collection of human beings acting under similar circumstances. Nor may I pass from the subject without pointing out, that very deep-lying differences exist even in the four characteristics which the Kandh Hamlet and Hindu Village have in common. In the first place, while both were 'groups of agricultural families with rights in the soil,'[12] yet in the Hindu Village the group formed a self-acting organism, whose authority each of the individual members acknowledged; while in the Kandh Hamlet each family stood apart as a separate entity under its own House-father. A number of rights in the soil, partly vested in the King, partly in the Commune, and all superior to those of the individual Family, existed in the Hindu Village, so as to leave the actual cultivator only a bare right of occupancy. The Kandh Hamlet knew of no such rights, and the *plenum dominium* of the soil, including all its elements of

[12] *Ante*, p. 206.

occupancy, possession, and transfer, vested in the Family, whose members actually tilled the fields.

It follows, therefore, that while both the Kandh Hamlet and the Hindu Village agreed in the second characteristic of 'living under a half-elective, half-hereditary Headman,'[13] the functions of this officer were very different. In the Hindu Village, as I shall hereafter explain, he performed certain distinct and important duties, for which he received definite emoluments, and enforced his authority generally by the power of public opinion, but, if need be, by his subordinate officer, the rural watchman. In the Kandh Hamlet he was simply the unpaid president of the Council of Family Heads, without either authority, emoluments, or any official distinction—the first among equals. For example, both the Hindu and the Kandh Headman presided over sales of land. But in the Hindu Village, registration by the Accountant was required to render the transfer valid; while the Kandh House-fathers jealously maintained that they appeared before the Hamlet Head, not to obtain his sanction, but to secure publicity to the transaction by having him as a witness. Nevertheless, a very close analogy existed in his mode of appointment, by the election of a fit man from the prescribed family, not by actual voting, but by tacitly passing over the hereditary representative, if he were deemed unworthy of the honour. This mode of election, however, is common to other races besides the Hindus and the Kandhs.

As to the third point of resemblance, although in both cases the Village formed a sort of territorial jurisdiction, with the homesteads in the centre, the Kandh Hamlet never grew into that firmly-defined territorial entity

[13] *Ante*, p. 206.

which is the great characteristic of the Hindu Village. In some villages the waste lands were partitioned, in others they were not;[14] and throughout large tracts the villages had practically no boundaries whatever, as a Kandh could claim any unoccupied land within his tribal limits.[15] While the Hindu Village survived every form of oppression and violence, and at the end of long periods of anarchy is the one unchangeable feature in the landscape that lifts its head above the flood, the Kandh Hamlet often partook of the character of a temporary clearing rather than of a permanent settlement, and was in some places shifted every fourteen years. The Kandh Hamlet was, in short, a mere group of Homesteads, associated in one spot for the convenience of the individual Families; the Hindu Village was a firmly cohering entity.

Finally, while both the Kandh Hamlet and the Hindu Village had certain landless low-castes attached to them, the Helots by no means held the same position in both. In the Kandh Hamlet they never effected anything like an entrance into the rural organization. The Families of Husbandmen allowed a little colony of basketmakers, potters, and other poor wandering handicraftsmen of alien race, to build their hovels at the end of the single street of homesteads which constituted the Kandh Hamlet.[16] But they did so only for their own convenience, and to save themselves from any occupation more ignoble than husbandry or war. They treated the settlers with kindness, resented any wrong done to them by other Kandhs, reserved a charitable portion for

[14] Macpherson's Report, Part iv. sec. 17. [15] *Idem.*

[16] See Annals of Rural Bengal, vol. i. p. 218, and indeed the whole chapter, for analogies between the Kandhs and the aboriginal Santals farther north.

them at the Hamlet feasts, and paid them in grain for their work. But although not in any sense *ascripti glebæ*, for the very sufficient reason that they were allowed to have no connection with the soil whatever, the aliens never rose in the Kandh hamlet above the rank of servile handicraftsmen. Nevertheless they shared in the religion and ceremonial rites of their lords. In the Hindu Village, on the other hand, the low-castes appear rather in the light of free day-labourers, partly employed in trade, but also to a large extent in agriculture, despised socially, and wholly cut off from the religious polity of the higher classes, yet coming very much nearer to an integral part of the Village community.

How far these differences are mere matters of progress and development I need not here inquire. It is clear that, after the Aryan conquest of India, two great sources of change would be at work. In the first place, a more settled government would favour the growth of population; the people would press more heavily on the soil; and as land became more scarce, it would acquire a market value, and rent would become possible. The immunity of primitive tribes from rent is simply a proof of a universal principle of political economy. The establishment of the Hindu system of royalty would be a second great source of change. For kings and nobles must be supported; and in an agricultural country they can only derive their maintenance from the land. Hence grew up that variety of rights in the soil above those of the actual cultivator, which so complicate inquiries into the Indian land-law.

The Tributary States illustrate in some important respects the transition from the Kandh Hamlet and the Family stage of society, into the Hindu Village of the

plains. This transition marks not only a change in land-rights, but in the pressure of the population on the soil. In the Kandh country, where no superior rights existed above those of the actual cultivator, we find such a surplus of land as to render rent an economic impossibility. So long as seven-eighths of the area lay open to the first occupant, no one would pay for the use of the remaining one-eighth. The Tributary States exhibit an intermediate stage not only in the growth of superior rights above those of the actual cultivator and in the rates of rent, but also in the pressure of the population on the soil, which is the great regulator of these rates. In the British Districts of Orissa we find superior rights and rents in their highest development, and also the intense weight of population on the soil, which renders such rents almost inevitable.

	Total Area in square miles.	Total Population.	Total Number of Villages.	Total Number of Houses.	Villages per square mile.	Houses per square mile.	Population per square mile.	Population per Village.
Kandh Country,[17] . .	1,400	22,079	621	5,446	0·44	3·89	15·77	35·55
Tributary States, excluding Keunjhar and the Kandh Country,[18]	11,612	845,531	8,941	142,342	0·77	12·25	72·82	94·56
The Three Districts of British Orissa,[19] . .	7,723	2,319,192	19,530	429,071	2·52	55·55	300·29	118·75

In the Kandh Country the husbandman has no one above him with rights in the soil; in the Tributary States he has only a single such person above him, to wit, the

[17] I take the area, population, villages, and houses from a Return drawn up by Lieut. Hill about 1840 or 1841. It refers only to the Kandh Country in Bod, as my book only deals with the Orissa Kandhs. Macpherson's Report, Part i. sec. 30.

[18] I take the area, population, villages, and houses from the returns collected for my Statistical Account of the Tributary States. *Vide* App. III.

[19] I take these figures from the returns collected for my Statistical Accounts of Purí, Balasor, and Cattack Districts. *Vide* App. I., II., and IV. In the absence of a regular census, they must be taken as estimates only. A proper census is now in progress (1872).

Rájá or Hereditary Prince, in whom rests the abstract ownership, while the right of occupancy remains with the actual cultivator. In the adjoining British Districts, a long chain of intermediate rights stretches downwards from the sovereign to the tiller of the soil. I do not here propose to enter upon the question of how far these differences have been produced by extraneous influences, such as conquest or the incoming of new races. Any such inductions ought to be based on a larger collection of facts than hitherto exists. But I would point out that the three stages in the growth of rights exactly correspond to the three stages which the above table discloses in the pressure of the people on the land. As that pressure increased, and as the surplus land diminished, it became more and more possible to levy rent. Indeed, the development of tenures and of superior rights is in Orissa only another formula for expressing the distribution of the constantly increasing rent, or the difference in value between the best situated lands and the worst. The British Districts of Orissa have more than four times the population per square mile that the Tributary States have, and close on twenty times that of the Kandh Country. In the Kandh Country there was in 1840 not a single landlord. In the Tributary States there are only eighteen real proprietors, who, with their deputies and nominees, may amount to seventy-five in all. In the three British Districts, with less than half the area of the Tributary States, the proprietors and co-partners actually registered amounted in 1869–70 to 14,231.[20] Throughout Orissa, rent, and in general land-rights above those of the actual cultivator, have only

[20] *Taujis* of Cattack, Purí, and Balasor Collectorates for 1869–70. Many of these recorded proprietors are themselves the actual cultivators.

developed in proportion as the increased pressure of the people on the soil rendered such development inevitable.

Under the Hindu Dynasties, the land arrangement in our three Districts of Orissa Proper closely resembled the system still current in the Tributary States. The ownership vested in the sovereign; the right of occupancy in the village community, or in the individual tiller of the soil. The Hindu princes allowed no intermediate tenures or proprietory rights to grow up between themselves and the actual cultivator, but treated their kingdom as a private estate, and vigilantly administered it by means of land-bailiffs and a great staff of subordinate officers. The Muhammadan conquerors found this arrangement impracticable. Foreigners by birth, by religion, and by language, and constantly engaged in war, from the very first they found great difficulty in a plan which demanded the close and constant supervision of a native hereditary prince. After the Province passed from the Afgháns to the Mughuls, and became an appanage of the Dehli Empire, the system wholly broke down. The Hindu plan involved more scrutiny and local knowledge than was possible with a non-resident prince, and the distant Emperors in Northern India administered less by officers than by intermediate proprietors between themselves and the cultivators. That is to say, the land-stewards who, under the close watching of a resident Hindu Prince, were only public servants, acquired under the Musalmáns a fixity of office and an independence which prepared the way for their development into landed proprietors. This last part of the process has taken place under British Rule. The growth of proprietory rights in Orissa, therefore, divides itself into three stages: the Era of Offices, under the native

Hindu Dynasties; a period of Inchoate Rights, under the Muhammadan conquerors; and the Age of Landlords, under the English reign of law. I shall endeavour to put together an outline of each, from the evidence preserved in the rural records.

And first of the Era of Offices. The Hindu Princes laid out Orissa into several Great Districts,[21] comprising a large number of Fiscal Divisions,[22] with many Villages[23] in each Fiscal Division. The first was a political rather than a revenue partition of the country, and has left scarcely a trace upon the rural organization. It is with the two latter that we have to do. Of these the Fiscal Division formed the administrative entity, by means of which the sovereign dealt with the Villages; while the Village formed the rural unit through which his officers reached the individual husbandmen. Each had its own set of executive machinery. Three officers, more or less directly appointed by the prince, ruled over the Fiscal Division. A Divisional Headman[24] exercised the general functions of Government, and was primarily responsible to his sovereign for the public peace and for the public revenue. As magistrate, he

[21] *Dandpats*, which afterwards became the Sarkárs of the Muhammadan land system. The word has long fallen into disuse, and its orthography and derivation have alike become matters of dispute. It survives, however, as a reduplicative, in the term Sarkár Kalinga Dandpat, for the southern parts of Orissa under the Gangetic Dynasty, and in old *Sanads*, where Sarkár-i-Bhadrakh appears as Bhadrakh Dandpat.

[22] *Bisis* (from the Sanskrit root, a country), or *Khands* (a territorial division, as in Bandalkhand, Rohilkhand, etc.). The Bisi afterwards became the Pargannah of the Muhammadan land system.

[23] Gáong or Grám (Sanskrit, a village). The Grám became the Mauzah of the Muhammadan land system.

[24] *Bissoi* (Vishayi), or *Khand-adipati*, literally Chief of a Division. Farther south he was called *Des-mukh*, literally the Country's Mouthpiece. In the Muhammadan revenue system they are called *Chaudhari*, or *Chaudhri*.

had the aid of a Head-Swordsman[25] and a body of armed police. Of the latter, part[26] was stationed under the immediate command of the Head-Swordsman, and lived either rent-free or on easy terms upon his grant of land; while the remainder were dispersed throughout the Fiscal Division, attached to individual Villages, and formed the Rural Watch.[27] The force which remained at headquarters contributed largely to the peasant militia, of whom I have spoken so frequently in Chapter VI.; and along with the feudal contingents, hereafter to be described, were said to number 300,000 men.[28] The Rural Watch attached to the separate Villages, and at present amounting to 10,360,[29] lived by the cultivation of patches of rent-free land, with an annual gift from each husbandman of 'a rather large sheaf of corn on every five acres.'[30] The Divisional Headman had therefore no lack of police to enforce his orders as magistrate.

In his fiscal capacity he had the help of a Divisional Accountant.[31] This officer belonged to the Karan caste, an intermediate class between the acknowledged Aryan and the Non-Aryan elements of the population, and corresponding to the Writer caste in Bengal.[32] They probably

[25] *Khanddit*, or more properly *Khanddyat*, from *Khandá*, the name of the native Uriya sword. The term was sometimes applied to the feudal nobles, or Fort-Holders (Killadárs). Minute by the Secretary to the Commissioner, 15th October 1821, para. 9.

[26] Called *Páiks*, sometimes also *Khanddits*; *Peons*, or *Piyádas*, literally *footmen*.

[27] *Chaukidars*.

[28] Under Anang Bhim Deo, greatest of Orissa kings (1175–1202 A.D.); estimated by Abul Fazl in 1580 at 100,000. Stirling, As. Res. xv.

[29] In Purí, 2778; in Cattack, 5363; in Balasor, 2219 (in 1868); total, 10,360.

[30] Mr. Wilkinson's Report, 29th April 1837, para. 20. P. R.

[31] Called *Bhúi-múl* by the Hindus, a name still current in Khúrdhá. The Muhammadans changed their name to *Kánúngos*, or more specifically *Kánúngo Wiláyati*, to distinguish them from the Village *Kánúngos*.

[32] The Karans appear to be really Sudras; but as they practically rank

represent the rural aristocracy previous to the arrival of the present Brahmanical order. The Hindu system left the whole details of the revenue administration in their hands. They kept up the registers of the Villages, with the particulars of cultivation in each, settled the amount of their land-revenue, and collected the tax in couries or rice, according to local usage, from the Village Heads at harvest-time. They seem to have been the officers really responsible to the Sovereign for gathering in the full revenue from the Fiscal Division. In large Divisions the office was divided between two or three Accountants, each of whom had immediate charge of a particular part of it, but remained 'to a certain extent jointly responsible for the revenue assessment on the whole Division.'[33]

But besides the civil administrative body of the Fiscal Division, consisting of the Divisional Head, the Divisional Accountant, and the Head-Swordsman (or Divisional Superintendent of Police), with their respective subordinates, there existed a very important military organization. The greatest of the Orissa monarchs, so runs the legend, divided his kingdom into two parts; one half of which he made over for the support of his chiefs, armies, officers of state, and priests of religion; the other half he reserved as his own royal domain.[34] A large portion of the assigned lands lay on the frontiers, for the protection of the kingdom against the highland clans on the west, and against the pirate hordes on the eastern seaboard. The system of Fiscal Divisions ap-

next to the Bráhmans, their high position has given rise to various explanations and legends. For their relations to the Káyasths of Bengal, see App. II. p. 39.

[33] Secretary's Minute of 15th October 1821, para. 17.

[34] Under Rájá Anang Bhím (1175–1202 A.D.). The proportion was 2,318,000 *Bátis* of land assigned away, to 2,430,000 *Bátis* retained for the royal domain. Stirling, As. Res. xv.

plied in its entirety only to the intermediate lowlands; but even in the heart of the kingdom a military force had to be maintained. It consisted of a feudal nobility, who, under the title of Fort-Holders,[35] or by whatever other name they might be locally called, enjoyed large grants of land from the Prince, on condition of furnishing, when required, a certain contingent of troops. This contingent they maintained in the shape of a vast peasant militia, variously stated at from 100,000 to 150,000, or even 300,000 men, settled at easy rates, or altogether rent-free upon their feudal grants.[36] In the more settled inland parts, such Fort-Holders can with difficulty be distinguished from the Divisional Head-Swordsmen, and in some cases they appear in the twofold capacity of Feudal Chieftain and Divisional Superintendent of Police.[37] On the frontier they ruled as Lords of the Marches,[38] Lord-Lieutenants,[39] and Captains of Divisions,[40] but everywhere their generic name was Swordsmen.[41] In many cases they were aboriginal chieftains, whom the Hindu sovereign enlisted by conquest or by treaty for the defence of his frontier; but in others, distinct legends exist of their descent from the 'relations, officers, and menial servants' of the Orissa King.[42] Mr. Thackeray well describes the former class as 'rather the descendants of the ancient lords of the country than of the revenue and police officers of the great native [*i.e.* Hindu] Governments; rather as

[35] *Killadárs*, sometimes called Khandáits. Their various Uriya names will be given in subsequent notes; but in general they correspond to the Muhammadan *Jaghir-dárs*.

[36] See footnotes 26 and 28 to p. 216.

[37] Like the Faujdárs of the Muhammadan system.

[38] *Bhúpatis*. [39] *Mahá-náiks*. [40] *Sawants*. [41] *Khandáits*.

[42] See Orme's account of the Hill Chiefs or Poligars of Chicacol and Rajmahendri, after the conquest of that country by the Orissa Dynasty.

Captains of the Borders, Lords of the Marches, and Chiefs of the Hills, than as private landholders.'[43] Sometimes they were free feudatories, who paid no revenue, and merely acknowledged allegiance to their Hindu Sovereign as paramount; in other cases they contributed a light tribute, as the present Rájás of the Tributary States do to us. Even the smaller Fort-Holders on the seaboard were held by one of our most discerning officers[44] to be descended from the 'indefeasible proprietors of the soil.'

In addition to the Feudal Nobility, the chief Officers of State and the family of the Sovereign also enjoyed grants of land. These two classes may be grouped under title of the Maison du Roi. The Prime Minister,[45] the King's Spiritual Director and Lord Chancellor,[46] the Generalissimo of the Forces,[47] with the rest of the sixteen great Officers of State,[48] and a host of royal kinsmen and courtiers, all derived their emoluments or their pensions from assignments of the Crown Lands. It must never be forgotten that in Orissa these Crown Lands comprised the whole kingdom excepting the frontier tracts granted away on Military Tenures; tracts which, although equal in area to the Royal Domain, were, from their mountainous or exposed situation, not worth one tithe of it in value.

As the Fiscal Division was the administrative entity of the Hindu Revenue System, so the Village formed

[43] Mr. Thackeray's Report to the Madras Government on the Uriya Hill Rájás of Ganjám and Vozagapatam, 15th February 1819, para. 4. The great novelist's father has left his mark very distinctly on more than one District. In Sylhet they pointed out to me three rival localities which claim the honour of being the site of 'Thackeray's House;' and a collection of his official papers would of itself form a valuable contribution to a truer knowledge of India.

[44] Mr. Forrester.

[45] Bawarta, Maháрátra.

[46] Rái-Guru, or Mahá-Guru.

[47] Senapati.

[48] See vol. i. chap. v. p. 325.

its rural unit. Its official organization closely resembled that of the Fiscal Division above described, and consisted essentially of a Headman, an Accountant, and a Watchman. These functionaries never lost their official character under the Hindu sovereigns of Orissa. As the Divisional Head and the Divisional Accountant were responsible to the King's treasurer for the whole Revenue of the Fiscal Division, so the Village Head and the Village Accountant were responsible to their Divisional superiors for the complete revenue of the Village. In like manner, as the Divisional officers distributed the land-tax among the various Villages in the Fiscal Division, so the Village Head and Accountant divided the amount due from the Village among the individual husbandmen. Both sets of appointments had a tendency to become hereditary, but both required confirmation, or at least recognition, by the King or his representative. The Village Head, however, partook not only of an official and an hereditary, but also of a representative character, and in some respects seems the lineal descendant of the Village Head or Patriarch among the aboriginal tribes. The introduction of royalty altered his position in two ways. It made him responsible to a superior authority; and it vested him, as the representative of that authority, with a power over his fellow-villagers unknown in the Kandh Hamlets. Nevertheless the elective and democratic nature of his office distinctly appeared. He was much less of an official, and more of a popular representative, than the Divisional Head. His position was a matter of usage and slow growth, rather than of formulated functions. But it seems to have amounted to this, that while the King or his minister actually appointed, or at least officially confirmed, the

Heads of Fiscal Divisions; tacit recognition by the latter was all that a Village Head required. The Village Head represented the royal authority among his fellow-villagers, and was the representative and mouthpiece of his fellow-villagers to the superior revenue officers.

More materials exist, however, for the study of the Village System and the status of the husbandmen, when we enter upon the second stage of land-tenures,—namely, that of Inchoate Proprietory Rights. The hereditary nature of offices under the Hindus introduced an element of fixity which, under the rough and distant government of the Mughuls, soon began to harden into permanent title. Two centuries of conflicting usage followed (1567–1751). During that period of confusion and chronic rebellion, the Muhammadan Governors were only too glad to secure the revenue for each current year, without any nice scrutiny of the machinery by which they collected it.

The Divisional Officers, or Heads and Accountants of Fiscal Divisions, chiefly benefited by the change. The Musalmáns in Orissa had neither sufficient leisure nor sufficient knowledge for the details of administration. What they wanted was a body of powerful native middlemen, who should take the trouble of dealing with the people off their hands, and who should have both power and local knowledge enough to enforce the revenue demands against the individual villages. In the Hindu Divisional Officers they found such a body ready to their hand. But this body, as it grew more and more necessary to the foreign rulers of Orissa, also grew more and more independent. It soon began to lose its homogeneous character as a staff of revenue officers, and split up into a number of different landholders, each with

more or less of admitted proprietory right, according as each individual had strength and opportunity for asserting himself; but none possessed of anything like a full ownership in the land.

This was the practical process. But theoretically, the Muhammadans in Orissa, as elsewhere, had quite as minute a revenue system as the Hindus. They retained the old division of the Province into Royal Domain[49] and Military Fiefs,[50] contenting themselves as regards the latter with a verbal allegiance and a nominal tribute. They also respected the provision for the Royal Household, and great officers of the Court under the Hindu Dynasty, and left 1547 square miles as the undisputed demesne of the Khurdhá Rájás and their dependants.[51] The residue of the Royal Domain, amounting to about 5000 square miles, they administered by means of the Divisional Heads above mentioned, but in part supervised by officers appointed directly by the Government. These supervisors[52] held an uncertain and a very fluctuating position, on the whole tending to retard that growth of individual proprietory rights which they could not wholly prevent. Under the Marhattás (1751–1803) they obtained a development which they do not seem to have attained under the Mughuls. When we took over Orissa in 1804 they numbered 32,[53] each with a territorial jurisdiction of his own, yet all strangely jumbled up with a multitude of quasi-proprietors in the land. But it

[49] Mughulbandi. [50] Garhjáts.

[51] To the Khúrdhá Rájás, Khúrdhá Proper, with the Fiscal Divisions of Ráhang, Sirái, Chaubiskud, and Lembai, aggregating 1342·51 square miles. To the Patiyá Rájás, the Fiscal Divisions of Patiyá and Sáibir, aggregating 74·03 square miles. To the Al Rájás, the territory of Al, 131·10 square miles.

[52] The predecessors of the *Amíls* whom we found in Orissa in 1804.

[53] Minute of 15th October 1821, para. 6.

remains doubtful how far these supervisors were of Muhammadan, and how far of Marhattá origin.

The Musalmán conquerors trusted chiefly to the Heads and Accountants of Fiscal Divisions whom they found existing in the land. But as these functionaries gradually put off their purely official character, and assumed that of quasi-proprietors, they took a variety of new names. It is under these new names, such as Land-holder,[54] Tenure-holder,[55] etc., that we found them still existing in 1804, and it is under them that I now propose to examine their status and rights.

And first of the Landholder, the *Zamíndár*, about whom so much has been written. The term was applied very sparingly under Muhammadan rule (1567–1751), and even under the Marhattás (1751–1803). When used in the records at all, it applied only (1) to feudal Fort-holders,[56] or (2) to holders of one or more entire Fiscal Divisions of the Royal Domain.[57] It is with the latter class alone that we have here to do. They represent those old Divisional Heads, who succeeded in retaining the management of *one or more entire* Fiscal Divisions, and when we obtained the Province in 1803 numbered only six.[58] Their fewness was due in part to the general overthrow of rights under Marhattá misrule (1751–1803), but chiefly to the circumstance that only in

[54] Called *Zamíndárs* (literally *land-holders*) by the Musalmáns, a weak synonym for the Hindu *Bhúpati* (literally *lord of the land*).

[55] Talúqdár. [56] Killadárs, or the Rájás and Khandáits of Forts.

[57] Minute of 15th October 1821, para. 10. In common language, the term had a wider use.

[58] With seven complete Fiscal Divisions among them, viz. Kotdes, Kalijori, Sháhábad, Sáibir, Utikan, Jaynábád, Sultán-nagar, aggregating only 293 square miles. Minute of 15th October 1821, paras. 8, 15, etc., and Revenue Survey Papers. By 'Royal Domain' I invariably mean the whole *Mughulbandi*, *i.e.* all Orissa, except the Military Fiefs and the Tributary States.

rare cases had the Divisional Head managed to keep the whole Fiscal Division in his own hands. Everywhere he had to compete with at least two powerful rivals, the Divisional Accountant and Head-Swordsman (or Superintendent of Armed Police). In the larger Fiscal Divisions, moreover, several different officers existed under each of these names, with joint responsibility as already explained. Accordingly, in about 140 out of the 150 Fiscal Divisions into which the Province was then distributed, we find that a partition took place, each of the old Divisional Officers of the Hindu system obtaining a share, and developing into a quasi-proprietor. Such persons passed under the generic term of Tenure-holders,[59] but the old threefold classification still survived in their specific titles.[60] They numbered 429 in 1804, and paid £65,000 of land-tax. The Fiscal Division of the Hindu system, and its staff of Divisional officers, disintegrated under the Muhammadans into a number of territorial subdivisions, each with a quasi-proprietor at its head, who claimed the permanent right of distributing the burden of the land-tax among the villages, and of collecting it from them. The more powerful among such Tenure-holders paid the revenue thus gathered direct to the Government treasury, the smaller ones paid through the Mughul officers or the great Landholders (Zamíndárs) above mentioned; and this privilege of paying direct to the treasury always pertained to the Zamíndárs. But a constant tendency evinced itself to liberate

[59] Talúqdárs.

[60] Thus, (1) Talúqa-Chaudharis, estates representing the Hindu Bissoï, or Divisional Heads; (2) Talúqa-Kánúngoïs (or, to distinguish them from the corresponding class of petty tenures in the villages, Talúqa-Kánúngo-Wiláyati), representing the Bhúimúls, or Divisional Accountants, of the Hindu system; and (3) Khandáits. The number of the first and second class were about equal. Minute of 15th October 1821, paras. 7, 27 (footnote), etc.

the smaller Tenure-holders from such control, and to allow them to pay their revenue direct to the Treasury. This amounted to removing any intermediate superior between themselves and the governing power, and marks an important stage in the growth of proprietary rights.[61]

It is very difficult to treat of a composite body of this sort as a whole. What can be accurately predicated of one class does not apply to others; and in the scramble for land-tenures, each individual snatched at more or less of proprietary right, as his own strength of arm, his remoteness from the Court, and the weakness of the Governor for the time being, gave him opportunity. Thus, with regard to the Origin of their Title. Every one of the Divisional Officers, or of the Landholders or Tenure-holders who grew out of them, acknowledged that theoretically he or his ancestors owed their position to the Government. In the neighbourhood of the capital, the stronger sort of Muhammadan governors exercised the *right of appointing*, just as the Hindu Prince or his Minister had done in the old days. But in a large number of cases the hereditary principle softened down this right of appointing into a *custom of confirming* the new man, after he had actually succeeded to the position which his father held before him. By degrees, such acts of confirmation became matters of course on forwarding the customary present to the Governor, with suitable bribes to his subordinates; and

[61] The question became of great importance in Bengal at the time of the Permanent Settlement (1789–1793). The Cornwallis Code of that period classifies the Talúqdárs into Independent Talúqdárs, or those who have a right to pay direct to the treasury, and Dependent Talúqdárs, or those who had to pay through the Zamíndárs. The Independent Talúqdárs obtained legislative recognition as Zamíndárs.

the official mandate of appointment[62] came long after the *de facto* succession to it had taken place. Theoretically, such a mandate of appointment always continued necessary. But as the Muhammadan government became more feeble, and especially in localities remote from the Court, even this custom of confirming grew less and less binding, and lapsed into a *tacit recognition.* The Musalmán governor gladly accepted the revenue, without questioning the right of the sender to collect it, and indeed found it more profitable to leave the work to the hereditary heads of the Division, than to send out officers ignorant of the individual locality, and sure to be opposed by the whole influence of the former collectors or Tenure-holders. In this way the old Hindu *right of appointing* passed into a *custom of confirming*, and thence into *tacit recognition.*

When the Tenure-holders produced their title-deeds, shortly after the Province came under our Rule, they all rested their right on some Mandate of Appointment from one or other of the previous governing powers. Many of them, indeed, brought forward several such documents, showing that the appointment had been renewed from time to time in their family. But so far as could be afterwards ascertained from the records, not a single case occurred in which a Landholder filed an unbroken series of these Mandates, or in which his papers showed that his family had sought or obtained even a confirmation from the Ruling Power, on the event of *each* succession from father to son.

[62] The *Sanad.* Theoretically, such *sanads* should have been renewed year by year, but this practice seems never to have been observed. The *sanads* themselves distinctly direct that the subordinate officers and cultivators shall continue subject to the mandatory, without expecting their annual renewal.

In this way the hereditary offices of collecting the land-revenue developed into inchoate rights in the land. Such inchoate rights, however, never amounted to ownership in the soil, but only to a title to distribute the incidence of the land-tax among the separate villages, to collect it from them, and to transmit it to the Government Treasury (or, in the case of a lower Tenure-holder,[63] to his superior,[64] intermediate between himself and the Treasury). It was not the land itself which formed the subject of the title, but the right to manage the land and collect the rents. A long chain of intermediate holders grew up between the Ruling Power which had the abstract ownership, and the Cultivator who enjoyed the actual occupancy. Thus the superior Landholder[65] received the rent from a subordinate Tenure-holder,[66] who gathered it from the Village Heads,[67] who often collected it by means of one or more Village Accountants,[68] who levied it from the individual husbandmen. Each of these had his own separate set of proprietary rights; and if these rights had been in the soil itself, then there would have been several owners of the same subject. Their rights, from the highest to the lowest, consisted in a title to finger the land-tax and pass it on. Even in Bengal Proper, British Legislation has failed to create for the Landholders a complete title to the soil. For though in 1793 we made over to them the abstract ownership, which had always vested in the Ruling Power, we could not give them

[63] *Talúqdárs.*

[64] Either a *Zamíndár*, or a revenue officer, corresponding to the *Amils* whom we found in Orissa; sometimes to the Divisional Accountant, *Sadr Kánúngo*, or *Kánúngo Wiláyati.*

[65] Zamíndár.

[66] Talúqdár.

[67] Padháns, or Dalbeháras, under the Hindus; under the Mughuls, Chaudharis, Mukaddams, etc.

[68] Bhúis, Bhúi-múls, or Kánúngos.

possession or occupancy of the land, as these belonged for the most part to the actual cultivators. Later legislation has very fully recognised this;[69] and half the mortifications and losses which English Capitalists have suffered in Bengal, arose from the principle not having been previously understood. It is a hard thing for an Englishman to realise; but it is nevertheless the fact, that when he buys an estate in Bengal, he buys not the land, but, as regards a large part of it, only a right to receive the rent.

In Orissa, the incidents of such *quasi*-proprietary tenures were four-fold:

(1) A right of *Hereditary Succession*,

(2) to the *profits of the land-management* of a Fiscal Division[70] or Sub-division,[71] or to a share in such profits and management;

(3) with *responsibility* to the State (or to the superior holder) for *the complete land-tax;*

(4) and a *limited power of transferring* the said hereditary right by sale or gift.

First, as to the Right of Hereditary Succession. This was theoretically subject to obtaining a Mandate of Appointment[72] from the Ruling Power, and such a Mandate long continued to be highly expedient. The heir of the last incumbent stepped into the office, and then sent the customary presents[73] and bribes to the Governor's Court, and took out a new Mandate. How this custom gradually lost force I have already explained.

Second, as to the Profits of the Land-management.

[69] Conspicuously, Act X. of 1859, with its elaborate provisions touching the 'Right of Occupancy.'

[70] *Bissoi* or *Parganná*, which terms I invariably render by the English words 'Fiscal Division.'

[71] Generically, *Talúqá*. [72] *Sanad.* [73] *Sálámí.*

These were fixed partly by the Mandate of Appointment, partly by local usage, and in neither does any precise rule seem to have been observed.

I give the text of two such Mandates, and leave the reader to judge for himself :—

Mandate of Appointment granted to a Superior Landholder (Zamíndár) *by the Mughul Government.*

'Let the managers of our present and future affairs, let all the subordinate Tenure-holders, Revenue Officers, Headmen, Accountants, and Cultivators know, that since the Right of Landholder[74] of the herein-mentioned Fiscal Divisions has been granted to the valiant Rájá Bakhtáwar Singh, he will therefore proceed to the discharge of his duties with circumspection and fidelity. He will render the Cultivators happy and satisfied with his conduct. He will exert himself to extend cultivation. He will pay regularly the Government dues. He will labour to prevent thefts and robberies in his jurisdiction, and to seize the perpetrators, should any such crimes be committed. He will abstain from levying unsanctioned or extra cesses. It is hereby ordered that you consider him as sole confirmed Landholder[75] of the said estate. And be it known to you, that all the profits, perquisites, and dues attaching to the Right of Landholder have become his. You will not acknowledge any one as his partner, nor require yearly a fresh Mandate. Herein fail not.'[76]

[74] *Khidmat* of *Zamíndárí.* I have throughout rendered the Persian technical terms into their English equivalents.

[75] Zamíndár.

[76] *Sanad,* bearing the seal of the Názim (or Imperial Deputy). Minute of 15th October 1821, para. 24.

Mandate of Appointment granted to a Subordinate Tenure-holder.[77]

'Let the managers of our present and future affairs, let all the Tenure-holders, Revenue Officers, Headmen, Accountants, and Cultivators of the herein-mentioned Fiscal Divisions know, that the Right of Tenure-holder and the Divisional Accountantship have, on the removal of the late incumbent, been restored to Murli Dhar Harichandan, who is an excellent manager and a punctual payer of the Government dues. He will therefore discharge all the duties of his office faithfully. He will pay regularly the revenue of the several villages at the stated periods of each year. He will keep the Cultivators happy and contented, and so exert himself that the signs of improved cultivation may be daily more visible, that the land may nowhere deteriorate, and that inferior crops are nowhere sown on soils which have borne more valuable ones. Should any thefts or robberies take place, he will assist in tracing the offenders and recovering the property. He will abstain from levying unsanctioned or extra cesses. You will henceforth consider the aforesaid Dhar Harichandan as confirmed Tenure-holder and Divisional Accountant.[78] Herein fail not.'[79]

The Landholder exercised magisterial and police functions, as well as those directly connected with the land-management. But it was from the latter source that he derived his emoluments. These emoluments,

[77] To a Wiláyatí-Kánúngo-Talúqdár.

[78] *Talúqdár*, and *Kánúngo Wiláyatí*.

[79] *Sanad*, dated 1740 A.D. (1153 A.H.), the year that Alí Vardí Khán marched to Cattack, and gave the Government of Orissa to his nephew, Sayyíd Ahmad. See App. VIII. p. 197. Minute of 15th Oct. 1821, para. 32.

although varying greatly in amount, may be grouped under one or other of eight heads :—

1st, Commission on the Collections.[80] This consisted either in an allowance out of the revenue actually collected, or in a grant of rent-free land. Sometimes it was defined in the Mandate of Appointment, but generally not; and nothing like a fixed proportion can be detected in the sum allotted. In one important class of tenures[81] it amounted to $1\frac{7}{10}$ per cent., in another recorded case to a little over 2 per cent.;[82] but the general rate seems to have been about 5 per cent. This was the standard rate arrived at by our ablest revenue officers when we obtained possession of the Province.[83]

2d, A grant of rent-free land,[84] generally lying round the Landholder's mansion. In some cases this was included as part of the commission mentioned above; but in others it formed a separate grant of 'ancestral land,' somewhat corresponding to our Home Farms.

3d, The profits of bringing waste or deserted lands[85] under tillage. Foreign invaders, domestic banditti, wild beasts, floods, and famines, had so thinned the population, that a vast area of fertile land lay everywhere untilled. The more enterprising Landholders tempted husbandmen from other jurisdictions to settle in such localities by low rates of rent; generally advancing the grain required for seed and for their maintenance till harvest-time. The

[80] *Rassúm*, often, but not invariably, associated with *Nankar*.

[81] The *Sadr Chaudharis* of Cattack. Minute of 15th October 1821, para. 31.

[82] Case of Naráyan Chotra, whose allowance was Rs. 2000 out of a revenue 'of nearly a lakh.'

[83] For the south part of Orissa, see Mr. Hunter's Report, dated 2d March 1804; and for a fair consideration of the whole Province, see Mr. Stirling's Minute of 1821, paras. 61, 62, and 90.

[84] *Nankar* or *Jaghir*.

[85] *Wairán*.

rental of the new village formed a perquisite of the Landholder, at least until the next re-settlement of the Land Revenue by Government. But when the time for re-settlement came, the Landholder pointed out all the cases of depopulation or waste that had taken place, and concealed as far as possible any cases of re-cultivation, so that the Muhammadan officers had generally to be content with a good fat bribe for themselves, and the old land-tax for the treasury.

4th, The Landholder had also this great source of gain, that while the Government fixed his Land-tax only every few years, and sometimes at much longer intervals, he assessed the rent of the separate villages each year. He always took care that the total sum thus levied should cover his own liability to the State, even in bad years; and in good seasons he managed, under various pretexts, which by degrees grew into recognised usages, to raise a good deal more.

5th, A large class of husbandmen, indeed, had to submit to whatever terms the Landholder might prescribe. These were the Non-Resident or Migratory Cultivators alluded to in a previous chapter,[86] and presently to be described in detail. Such families existed in every village, and it was by means of them that the Landholder re-settled waste or deserted lands. Theoretically tenants-at-will, they nevertheless had this practical protection, that if the Landholder oppressed them, they could find plenty of unoccupied land under another master. The Landholder divided his villages into two sorts,—those peopled by Resident Cultivators,[87] and protected by their Hereditary Village Heads; and those[88] peopled by the Non-Resident Husbandmen. With the second he dealt

[86] *Ante*, vol. i. chap. ii. pp. 54–58. [87] *Thâni*. [88] *Paikhast*.

direct; taking as much from them as the risk of their deserting their lands permitted, and paying as little land-tax as possible for them to Government. The first class of villages did not come directly under his power, but only through the intermediate agency of the Village Head. This latter functionary, or Tenure-holder, secured a certain amount of protection for the Resident Cultivators, who alone composed the corporate Village Body, of which he was the hereditary representative. He took care, for example, that the Landholder did not assign too large a share of the total land-tax of the Fiscal Division to his individual Village. But this protection applied only to the Resident Husbandmen; the Non-Resident or Migratory Cultivators, who might have settled round the village, remained mere tenants-at-will. The Landholder tried, whenever he could, to fix the whole burden of the village land-tax on the Resident Cultivators, through their representative the Village Head; and treated as his own private profits the collections which he made from the Migratory Husbandmen.

6th, Miscellaneous Dues and Cesses. These included not only certain rights over the fisheries,[89] pasture-lands, high-grass prairies,[90] bamboo jungles, and forests,[91] but also a variety of local taxes from the people. With regard to the first class, each village had a certain amount of pasture attached to it, with the right of cutting fire-wood and thatch-grass for home consumption. But this right appertained only to the Corporate Village Body (the Resident Cultivators). The Migratory Husbandmen had in many cases to make their own terms with

[89] *Jalkar.*
[90] Bená pát, which supplied the thatching material in Orissa.
[91] *Bankar.*

the Landholder; so also had strangers; and whatever was required for trade had to be paid for. Thus the Rájá of Párikud still derives one-fourth of his whole income from the two items of Thatching-grass and Fisheries.[92] The second class of Cesses[93] were of a personal nature, and amounted to a very burdensome system of local taxation. The least objectionable was a duty upon trade,[94] so as to reach the artisan and shopkeeping part of the community, who, not having land, would otherwise have paid nothing. But besides this legitimate form of taxation, a long list of twenty to thirty vexatious Cesses had grown up,[95] which the Husbandmen had to pay in addition to their rent. They included a birth-tax, a marriage-tax, a contribution when the Landholder died, a festival-tax, a crop-tax, a tax upon any transfer of land, etc. In short, the Cultivator found himself confronted on every hand with a demand for money. This, too, in spite of the efforts of the Muhammadan Governors to put down the practice. Every Mandate of Appointment expressly forbade the levy of any cess not sanctioned by custom or law. But the impossibility of deciding what was sanctioned and what was not, left the people at the mercy of the Landholders. The British Government cut the root of the evil by forbidding any local cesses whatever, and giving the Landholders compensation.[96] But the practice still survives in the mild form of voluntary contributions to the Landholder when a birth or marriage takes place in his family.

[92] £171 out of a total income of £698; *ante*, vol. i. pp. 35, 39.

[93] Known in our land-legislation as *Sayer*, or *abwabs*.

[94] *Kúl Habúbat.*

[95] Twenty-three on the north of the Chilká. Vol. i. p. 56.

[96] Instructions to Collectors, para. 15, issued with Secretary's Letter of 13th Sept. 1804; Proclamation of 15th Sept. 1804, para. 1. O. R.

7th, Transit Dues on Salt and Merchandise formed another important source of profit to the Landholder. In this, as in the other items of his income, no fixed principle can be detected. Each Landholder squeezed as much as he could out of every separate band of merchants who passed his way. In 1708, under the Muhammadan governors, the transit duties amounted to 32 per cent. on the 103 miles of highway between Cattack and Balasor, the two chief marts in the Province. But this also included the Government Tolls or *Octroi* charges along the route. In the adjoining District of Ganjám matters were even worse, the transit dues on timber mounting up 133 per cent. on a journey of 42 miles.[97]

8th, The last source of the Landholder's income consisted in his right to make petty alienations.[98] These alienations, as their Persian name implies, professed to be plots of waste or jungle land; and the custom arose from the fact that, unless a right of property were given in them, no one would think it worth his while to bring low-class outlying patches under tillage. But as the Muhammadan administration became more confused and less searching, the Landholders gradually enlarged this usage into an important source of income. They sold patches of unoccupied fertile land to any one who would pay for them, and at length created whole villages on this principle.[99]

The total money-value of these various sources of income could never be ascertained. On our acquisition of the Province, the first British Commissioners made searching inquiries on this head; and in their instructions

[97] *Ante*, p. 44. [98] Arázi Banjar Kharij Jama.

[99] *Kharídágí Mauzas*, *Kharídágí Patnás*, or more shortly, *Patnás*.

to the subordinate officers, expressly left a column to show the value of the Landholder's Right in each separate estate. But 'the attempt failed entirely in every instance, and the columns destined to show these particulars are found to be uniformly blank.'[100] We know, however, that under the Native Government the Landholder's Right sold at from one-fourth to one-half the amount of the Government Land-tax. That is to say, if the land-revenue amounted to Rs. 10,000, the Landholder's right to collect and transmit it would sell for Rs. 2500 to Rs. 5000. Considering the instability of the tenure and the confusion of the times, the price would represent not more than three years' purchase; and if we accept this basis of calculation, the Income of Landholders under native rule may be put down at 8 to 16 per cent. of the Government Rental. If we take the price to represent only two years' purchase (and in many cases it would certainly not exceed this), the yearly value of the Landholder's Right would be from 12½ to 25 per cent.

With these profits went the responsibility for making good the whole Land-tax of the Fiscal Division or Estate. This formed the third incident of the Landholder's Tenure under Native Rule. It is constantly referred to in the Mandates of Appointment, and under a strong administration it was steadily enforced. The defaulting Landholder was either confined for arrears, or sold up. Imprisonment seems to have been the favourite mode in Bengal, where the Muhammadan governors exercised a supremacy and minute supervision which they never attained in Orissa. In the latter Province the Government frequently proceeded against a

[100] Minute of 15th October 1821, para. 60.

defaulting Landholder by the sale of his Tenure. It generally allowed him to conduct the transaction by private barter, the defaulter nominally disposing of the Tenure of his own free will, but the price being paid into the Treasury. The State secured the purchase-money by the provision that such transfers were void unless registered by its representative, the Accountant. But practically the procedure opened a wide door to fraud, as a Landholder could get rid of his arrears by selling the tenure to a dependant or accomplice, who was in reality his mere nominee. This machinery of fraudulent[101] sales for arrears was well worked against us in Bengal, just after the Permanent Settlement, and has been cited as an argument against that measure. But it was nothing new, and in truth formed the natural result of a Code, which *uniformly* substituted the sale of the tenure for the previous Bengal practice of imprisoning the defaulter.[102] That the milder procedure existed in Orissa is probably due to the fact, that the uncontrolled state of the water-supply rendered depopulation and arrears of the land-tax matters of every-day occurrence, and the imprisonment of the defaulters would have filled the jails, without yielding a rupee to the revenue. By the sale of the Tenure, the Treasury always realized something, however small.

It is doubtful, indeed, how far the limited right of transfer which the Landholders possessed, and which forms the fourth incident of their tenure, did not owe its origin to this practice. Under the Hindu Dynasties, nothing like a transferable proprietory title can be de-

[101] *Benâmî.*

[102] Both sale and imprisonment had been current in Bengal, as the Records of every District attest.

tected, except in the grants of land to the feudal nobility and the priests.[103] Even in these cases the right is doubtful, and seems to have consisted rather in the creation of intermediate holders between the royal grantee and the cultivators, than in any transfer of the grant itself. On the Royal Domain, however, no such right of transfer existed under the Hindus. But here again the hereditary tendency of Hindu offices obtained a fuller development under the less minute administration of the Musalmáns. It no doubt seemed a great hardship, that offices or tenures transferable by hereditary succession should be transferable in no other way. Besides, there existed the right already alluded to of making petty alienations of waste land,—a right found susceptible of great development. The procedure of *quasi*-voluntary sales for arrears of the public revenue gave a sort of sanction to sales for private convenience. Practically, our early officers found that two sorts of transfers had constantly taken place under the Muhammadans. One set came under the class of the petty alienations of waste land, although they sometimes conveyed away a whole village, *and distinctly spoke of the sale of the land itself*, specifying the exact plot. The other class resembled the sales for arrears, and transferred the estate or tenure of the Landholder. This class, however, did not convey away the land, but the right of managing the land,[104] with the distribution of the land-tax among the individual villages, its collection from them, and the other sources of profit already described as appertaining to the Landholder's position. The first class of sales transferred a certain amount of

[103] The Garhjáts and Sásans (the latter to be described hereafter).
[104] *Hak-i-Zamíndári.*

land; the second transferred a certain office connected with the land. The latter has by far the most important historical significance, as it formed the basis of that unrestricted right of transfer which our Legislation granted to the Orissa Landholders. But under the Muhammadans, the right of sale was subject, even in its most advanced development, to the formal consent of the ruling power. Every such transfer had to be examined and registered by the Divisional Accountant, and without his signature no deed of sale was valid. In short, as the Landholder's Tenure was theoretically a Government office, the Government insisted that in any transfer of the office its sanction should be formally obtained.

Even these rights, incomplete as they seem to us, were not obtained by the Landholders without infringing upon the status of other classes interested in the soil. For among a long series of claimants, each with an interest in the same subject, it is impossible to give anything to one, without taking away something from another. The Muhammadan governors clearly lost much of that sovereign ownership in the soil which the Hindu princes enjoyed. The classes below the Landholders also suffered, and for a time the Landholding interest strengthened itself at the cost of the Village Heads. But the arrival of the Marhattás in 1751 reversed this policy. The Marhattás brought with them the hereditary Hindu talent for the details of land-administration; and although the utter confusion of an outlying Province like Orissa precluded them from anything like a successful exercise of it, they nevertheless made the attempt. The Muhammadan Governors, foreigners by birth, by religion, and by speech, had willingly allowed a landholding class to spring up,—a class who

could stand between themselves and the people, and take the details of the administration off their hands. The Hindu Marhattás wanted no such intermediate agents. They preferred dealing with the Villages direct; and a strong staff of revenue officers, directly appointed by the Treasury, assumed the function which the Landholders and Tenure-holders had performed for the Muhammadans. Thirty-two revenue commissioners [105] quickly ousted the Landholding interest.[106] The inchoate proprietary rights disintegrated during thirty years of dispossession, so as to leave but indistinct traces of its existence; and when we acquired the Province in 1803, the old Landholders had to be diligently 'searched out.'

Meanwhile the Village Heads, who under the Marhattá rule dealt directly with the Treasury officers, developed apace. The confusion of the times practically left the details of the land-administration in their hands, just as the weakness of the Musalmán governors had previously left it in those of the Heads and Accountants of Fiscal Divisions. As in the one case the Divisional Officers grew into Divisional Landholders, so in the other the Village Officers developed into Village Landholders. The Muhammadan anarchy was the period of aggrandizement for the former; the Marhattá misrule for the latter. In both cases, the public confusion gave opportunity for the unseen, or at least unchecked, growth of private rights, and claimants belonging to both classes came forward with conflicting titles after our accession. Having explained how the Divisional Officers grew into *quasi*-Landholders, I now propose briefly to examine

[105] *Amils* or *Súbahdárs*.

[106] Mr. Deputy Collector Melville to Secretary to Commissioner, dated 22d March 1819, para. 39, etc. O. R.

the second source of proprietary right in Orissa—the Village Guilds.

We have seen that, among the aboriginal Kandh highlanders, the Village was only a group of associated homesteads, built close to each other for safety or convenience, with a not very well defined area of land attached, and a Patriarch, whose sole emoluments consisted in the public respect, as his authority depended entirely on the public support. The Hindu Village of the Orissa lowlands, when we came into contact with it in 1804, was a very much stronger organism. It consisted (1) of a firmly coherent body of Resident Husbandmen, who formed the Village Guild under its own head; (2) with certain families of Migratory or Non-Resident Cultivators, who, although they might live in the heart of the village, remained socially and politically outside the corporate body; and (3) a complement of handicraftsmen and landless low-castes, corresponding to the attached classes in the Kandh Hamlet.

Theoretically, the whole Village Lands were divided among the Resident Husbandmen[107] or Village Guild. They were jointly and corporately responsible, through their Headman, for the entire land-tax of the village, excepting when a deduction was made on account of the presence of Non-Resident Cultivators, in which case they were jointly and corporately responsible for the remainder. They paid their rent not to the Divisional Revenue Officer, or *quasi*-Landholder, but to their own Hereditary Head. This officer first settled with the Divisional Head, or *quasi*-Landholder, as to the total land-tax or quit-rent for the Village. He then distributed its incidence among the individual members of

[107] *Thání Ráiats*, from *stháni*, stationary.

the Village Guild, collected it from them, and paid it in a lump sum to the Divisional Head or his Deputy. I have already shown that the Resident Husbandman paid a much higher rent than the Migratory ones. In some places the latter paid barely one-half of the Resident rates, but in general over two-thirds.[108] Nevertheless, the Rural Guildsman had many substantial advantages over the outsider. As one of the Village Corporation, he paid no house rent or charge for the ground occupied by his homestead. He had the pick of the village lands, leaving only the less favourable sites for the Non-Resident Husbandmen. Even of the declared surplus land he had always the first choice, paying for them at the cheaper Non-Resident rates. In the case of rent-free grants[109] situated within his village, to priests or others who did not hold the plough themselves, he had generally the preference as under-tenant or *metayer*. He had, in common with his brother guildsmen, the right to use the pasture-lands, thatching prairies, and firewood jungles attached to the village. He had an allotment of garden-ground and a well-watered plot for his rice-nursery[110] rent free. Above all, he had a hereditary right of occupancy in his fields, and so long as he paid his accustomed share of the village quit-rent, was safe from dispossession. In short, he held the position of a responsible Village Burgess, whose homestead and property lay before all men's eyes, who could not run away without permanent loss of status, and whose personal security was therefore of much greater value

[108] For actual instances taken from the Settlement Papers, see *ante*, vol. i. 56.

[109] *Lakhirâj*.

[110] The Sárad, or great crop of the year, is transplanted blade by blade. *Vide* App. I. p. 14; App. IV. p. 131.

than that of a Non-Resident Tenant. His credit, accordingly, stood better with the Village Banker.[111] He could borrow on easier terms; and this alone was well worth the higher rates which he paid for his land.

The Village Head had no power to dispossess a Guildsman or Resident Cultivator so long as he paid his rent. Such Husbandmen never took out leases,[112] or gave written engagements[113] for their rent. They held their lands and paid their share of the land-tax by hereditary usage alone. Nor could they, on their side, sell or give away their rights. These rights amounted not to ownership in the soil, *but to a hereditary right of occupancy at the accustomed rent*, and it never grew into a transferable tenure. The *accustomed rent* was theoretically that fixed at the Settlement of Rájá Todar Mal, *circ.* 1580. But in reality it varied from time to time; and even when the rates remained unchanged, the assessment could be enhanced in the shape of extra cesses. Practically, the sole check which the peasantry had upon the Marhattá extortioners was flight into the swamps or jungles. Such a condition of things bore more cruelly on the Resident than on the Non-Resident Tenants; for the former always left behind them a homestead and garden-plot, on which the revenue bandits could wreak their vengeance. The stationary character of the Resident Husbandmen gave their oppressors a hold over them, and rendered them more patient, and indeed more powerless, under exactions of every sort.

It accordingly happened that their status has sometimes been mistaken for *adscripti glebæ*. And unquestionably, in certain parts of India, the Resident Cultivator

[111] *Mahájan.* [112] *Pattahs.* [113] *Kabúliyats.*

sank into a serf of the soil.[114] Even in Orissa, one of our most discerning officers recorded, that 'the only positive check to the exactions of the Landholder is the apprehension of the depopulation of his estate by the flight of his tenants.'[115] Nevertheless, this distinctive mark of personal freedom adhered to the Resident Cultivator in his troubles, that he could turn himself into a Non-Resident Cultivator whenever he pleased. During the Marhattá misrule, and perhaps before it, a custom had sprung up for the Resident Husbandmen of one village to take patches of the surplus land belonging to another, so that they held the double position of Rural Guildsmen in their own Rural Corporation, and outsiders in a second one. If pressed too hard at home, they could fly to their low-rented fields in the neighbouring hamlet, although the change brought with it a loss of status so painful to the peasant mind, that it seems to have acted rather as a check on the Landholder's exactions, than as a common avenue of escape from them. Yet recorded instances of such flights are not wanting, and the power of fleeing saved them from the risk of sinking into prædial serfdom. During the Marhattá confusion, Resident and Non-Resident Cultivators got curiously jumbled together, and one of our early settlement officers[116] describes the process as still going on under the Hindu princes of Khurdha.[117] 'It is said,' he writes of a Fiscal Division in their Domain, 'that the proportion of Migratory Husbandmen has of late years very much increased, in consequence of the heavy land-tax put on by the Rájá's farmers, many husbandmen

[114] See, for example, Buchanan's Mysore, i. 13. *Reprint.*
[115] Mr. Melville's Report. O. R.
[116] Mr. Forrester.
[117] The representatives of the Orissa Hindu Dynasty.

declining altogether to cultivate in their own village, and engaging only for lands in neighbouring villages, where they can settle the terms before they begin to cultivate.'

I have already explained the status of the Non-Resident Husbandmen.[118] Here it will suffice to enumerate the formal incidents of their position. First, They had, as a rule, no house or homestead in the village, or at least their proper homestead was in another village. Second, Even if long connection with the village had induced them to build a homestead, nevertheless they continued to be recognised as outsiders occupying the surplus land, and as such, formed no part of the Village Guild. They were, in short, residents without being burgesses, denizens and not citizens, devoid of a voice in the rural corporation. Third, They had therefore to pay rent for the ground on which they had built their house; and this separate rent, known as Homestead-Tax,[119] still clings to the Non-Resident Husbandmen under Hindu Rájás to this day. Fourth, Nor could they claim the privilege of paying their rent through the Village Head, but had to make the best terms they could with the Divisional Head or Landholder, and bear such private mulcts as the risk of their deserting their fields allowed him to impose. As a rule, however, for reasons already stated, they paid a much smaller total than the Resident Cultivators. Fifth, They had no hereditary right of occupancy at the accustomed rent, but held either by leases from the Landholder, or more generally as tenants-at-will. Sixth, Nor had they any title, save by agreement or by payment, to the pastures, thatching-grass prairie, or fire-wood jungle, attached to the village. In short, while the position of the Resident Cultivators was

[118] *Ante*, vol. i. 55–59.

[119] *Chandina.*

one of hereditary usage, the whole status of the Non-Resident Husbandmen was a matter of contract. Finally, the questions as to whether such a husbandman, long resident *de facto* in the village, could become a Resident Cultivator *de jure;* how long the process took, and on what terms he eventually obtained entrance into the Corporate Village Body,—remain, with many similar points, wholly obscure.

Nor is it needful to dwell at any length on the third element in the Hindu Village—the landless low-castes. With the advance of the arts, the position of the artisan has risen in Orissa as elsewhere; and the handicraftsmen and shopkeepers of a lowland village are infinitely better off than the attached castes of the Kandh hamlet. Many of them have patches of land, and the increased demand for labour has greatly improved the condition of those who have not. Practically, they fall under one or other of three classes; shopkeepers, artisans, and unskilled labourers. The shopkeepers have in many cases developed into merchants on a large scale. Every village has its *Mahájan*, who combines corn-dealing with banking, and adds a brisk export and import trade to both. Money has a much greater power than in the rude Kandh hamlet; and although the husbandman looks on himself as the born superior of the trader, he cringes quite naturally in the presence of men to whom he invariably owes money. The Village Corn-dealer often owns half the crops of the village long before harvest. Prosperous merchants of this sort are essentially a product of British Rule, and our ever-increasing facilities for transport and export yearly give new vigour to the growth. In the old times, no class existed in Orissa who could advance money or rice to the Cultivators, except the *quasi*-Land-

holders, or Revenue Officers. To this day, indeed, the Orissa Proprietors retain their old function of money-lenders to a degree very surprising to a man accustomed to the system in Bengal, where every petty hamlet has its own Village Usurer.

The artisans have not prospered so visibly. They have never developed into manufacturers, as the shop-keepers have into wholesale merchants, although at one time the Company's system of Factories gave promise of their doing so. Large manufacturing villages sprang up, and the Cattack and Balasor muslins formed an important item in the yearly Investments. But handloom industry, even in India, cannot compete with Lancashire machinery; and the Orissa weavers have returned to the artisan state. Individual families gain a livelihood by making up the peasants' cotton into cloth,—a good, substantial, un-bleached fabric, which wears five times as long as the Manchester goods, but which cannot compete with them on a large scale in the shops. The goldsmiths and silver-smiths of Cattack still send forth their exquisite creations in filigree; but neither has this branch of industry de-veloped into a large manufacture, if indeed it has escaped a certain degree of decay. Nevertheless the increased wages of artisans have improved their position, although the enhanced price of food has of late rendered this im-provement less than might be supposed. During the last twenty years the rise in wages has exceeded 35 per cent., and more than 100 per cent. within the half century. Food and rural produce may be put down at 75 per cent. dearer than in 1820; but as almost every householder in Orissa tills a plot of land of his own, the cost of living has not increased in equal proportion. The instinct for heredi-tary organization makes itself strongly felt among the

artisan class. Shopkeepers, handicraftsmen, and day-labourers—in short, the whole of the landless castes—follow hereditary occupations just like the husbandmen. Each trade forms a guild, with an internal organization of its own, corporate rules and duties, and an acknowledged Head. But in Orissa the artisans have ceased to be merely an attached class, as among the Kandhs; or a body of half-bondsmen, half-officers of the village, like the potters, weavers, washermen, etc., of ancient India. Our State Education is rapidly teaching them that a clever, energetic lad can everywhere make a career for himself under British Rule; although in this respect also Orissa shows a persistent clinging to past usage, which the more mobile Bengali has thrown aside.

The Unskilled Day-Labourers form a rather hopeless class in every fully-peopled country. In Orissa, however, the Canals and other Public Works have created an unprecedented demand for such labour; and the new facilities for exportation and transport have stimulated the extension of tillage. Instead of each husbandman cultivating just enough land to maintain his family, pay his dues to the priest, and keep his account going with the Village Money-lender, he now raises as large a crop as he possibly can, being always sure of selling it at a good price. This additional tillage is conducted to a large extent by hired labourers, paid either by a share of the crop, or at the rate of twelve to fifteen, and even eighteen, pounds of unhusked paddy a-day. At the same time, the demand for labour on the canals and public works has mobilised the labouring class, and given them a means of livelihood outside their village. These causes, combined with the great mortality among the landless low-castes in the Famine of 1866, enable the day-labourer

to make a much better bargain with his employer; and the little croft or garden patch, which even the poorest Uriya considers an essential adjunct to a human dwelling, renders the hopeless poverty and degradation of our English proletariate unknown.

The Village, with its triple organization of Resident Husbandmen, Non-Resident Cultivators, and Landless Low-Castes, had an official machinery closely resembling that of the Fiscal Division. Its Headman, Accountant, and Watchman, formed the counterparts of the Divisional officers already described. The Village Heads[120] were to the Marhattás (1751–1803) what the Heads of Fiscal Divisions had been to the Musalmáns[121] (1568–1750), and like them developed into *quasi*-proprietors. Although presenting to strangers the appearance of a homogeneous body, they yield upon analysis three very distinct and sometimes conflicting elements; to wit, Village Heads by Hereditary Succession, Village Heads by Purchase, and Village Heads by Election or Appointment.

The Hereditary Village Heads formed the most numerous class, and, according to popular opinion and tradition, represented the normal state of things. So far as can be calculated from the papers, between one-third and a half of the whole villages in Orissa had a Hereditary Headman.[122] A deeply-rooted, although not very well-defined impression, ascribed to them lineal descent from the original founder of the Village; an impression which their local titles served to perpetuate.[123] The

[120] Known in their Records as *Dalbeharas*, *Padháns*, *Chaudharis*, or *Mukaddams;* the two former derived from the Hindu system, the two latter from the Muhammadan.

[121] Report by Mr. Groeme, dated 8th January 1805.

[122] Minute of 15th October 1821, footnote to para. 43.

[123] *Búniyád-wállas*, or in Hindustani *Watandárs.*

lands[124] pertaining to their office bore the name of the Fields of their *Father's House*.[125]

Village Heads by Purchase[126] sprang in part from the circumstance, that when a Hereditary or other Headman died without heirs, his office or tenure lapsed to the State. This practically meant that the Head of the Fiscal Division, or the *quasi*-Landholders into whom the Divisional Officers developed, had the right to nominate a new Village Head. In some cases they sold the appointment by a regular deed, countersigned by the Divisional Accountant,[127] and sealed by the Muhammadan Judge.[128] A more common class of sales arose from the Village Head falling into arrears of the land-tax. If he failed to pay up the complete quit-rent of the Village, the Divisional Officer or *quasi*-Landholder could proceed against him, either by imprisonment or by selling his office. Such sales, as we have seen in the case of the Divisional Landholders, were disguised as an act of voluntary transfer, the deed specifying the fact of the arrears, and stating that the purchase-money has been paid into the treasury. A third class of Village Heads by Purchase owed their existence to new settlements on waste or deserted lands.[129] The Divisional Revenue Officers, or the Landholders who succeeded them, gave away, or sold for a small sum, the right of re-peopling such sites to some enterprising man, who got together the cultivators, and led them out to their new homes. In most cases he had to advance grain for seed and food till harvest, with a small money allowance for constructing tanks and dwellings. He thus stepped into

[124] *Nankar* and *Jaghir*.
[125] *Pitrálayá*.
[126] *Mukaddam Karídgárs*.
[127] *Sadr* or *Wiláyatí Kánúngo*.
[128] *Kází*.
[129] *Wairán*.

the position of the Original Founder of the Village above described. But deserted villages usually showed a tendency to re-people themselves, the Migratory Husbandmen squatting on the abandoned fields, and the new Village Head often found a nucleus of cultivators already settled on the spot. These he incorporated with his additional colonists into a Village Guild, and so the whole body of Migratory Husbandmen passed into Resident Cultivators, with all the rights of burgesses in the new colony. In many cases, indeed, this gradual process of re-peopling went on to completion of itself, and the appointing of a Headman was merely the last act in bringing back the village on the Government rent-roll of cultivated land. Without a Headman, the Village had no corporate rights, but in the eye of the law was a mere collection of Migratory Husbandmen;[130] the appointment of a Head converted it into a regular Village[131] or Guild of Resident Cultivators.

This brings us to the third class of Village Heads, to wit, by Appointment or Election. When the Headship of a Village lapsed, in the absence of an heir-at-law, to the Landholder, the latter seems more frequently to have appointed a successor than to have sold the office. Very often the Villagers took the initiative, and the Landholder's right of appointment amounted to little more than a right to confirm their nominee. For it was clearly the interest of the Landholder to have the Village under a man whom the Villagers would obey, and the Guildsmen had a deep-seated traditional belief, that their Headman should be at least as much their representative as that of the Landholder. Such a Village

[130] Such Villages were termed *Paikhást*, its cultivators *Páhí*.
[131] *Khúdkhást*.

Head was, at first at any rate, more dependent than a Headman either by direct Hereditary Succession or by Purchase. Indeed, this third class of Village Heads led a usually accurate observer[182] to describe Village Heads in general as 'the agents or representatives' of the Landholder, although the account of their duties which follows, suffices to rectify the false impression conveyed by these terms.

Nothing like a popular election by balloting or voting was known. But the fathers of the village talked over the subject in a slow, inconclusive manner while they passed round the evening pipe, and so with much uncertainty arrived at the general feeling on the subject. The man on whom their choice fell became Headman rather by *acknowledgment* than by *election;* often, indeed, by unpremeditated acclamation, like several of the best Popes. Practically, they seem to have chosen very fit men, and, if possible, from among the male kindred of their late Head. Indeed, even when the Hereditary Head left children, the office did not go as a matter of absolute rule to the heir-at-law, but to the nearest of kin whom the Villagers would recognise. They insisted on having a fit man—one who could fight their battles with the Landholder or Revenue Officer; and when the sons of the late Head were minors, one of the uncles often succeeded. The Villagers had always so much to say on the subject of appointing a new Head, that even in the case of a demise without heirs, the Landholder could seldom avail himself of the lapse, further than accepting their nominee, and receiving the usual present for his act of formal confirmation. Even in the case of new settlements on waste or deserted lands, the nucleus of squatters

[182] Mr. J. Hunter, Collector of Purí, 1804.

above alluded to had almost always a Headman of their own. For every trade, or craft, or occupation in India forms instinctively into a self-acting organism or guild, under an acknowledged Head. There was a constant tendency of such *de facto* Headmen of new settlements to become the Headmen *de jure*,[133] and sometimes the Landholder's act of appointment merely turned the pre-existing head of the Migratory Colony[134] into a Headman of a regular Village Guild.[135]

The profits of the Village Head corresponded, within the Village, almost exactly to those of the Landholders[136] within their larger area of the Fiscal Division. But his twofold capacity, as fiscal officer of the Government, and as the representative of the Village Guild, left its mark upon his emoluments. As fiscal officer, the State (or its representative, the Divisional Head or Landholder) allowed him one acre in twenty[137] of the land actually assessed under cultivation. As Village Representative, the Guildsmen paid him a small fee, equal to about a penny an acre, in addition to the Government rental. He also received a variety of presents, and seems to have occasionally made petty alienations of waste lands; in short, he enjoyed on a smaller scale most of the sources of income which I have already described as pertaining to the Divisional Landholders. He never seems, however, to have acquired even the inchoate right of sale which the Landholders exercised. Such transfers, in his case, could only be made with the

[133] *e.d.* the Headman of Patná Parsatí was elected by the inhabitants; and when the Village escheated, he continued to manage it on behalf of Government.

[134] *Patná* or *Paikhást* Village. [135] *Khúdkhást* Village.

[136] *Zamíndár* or *Talúqdár*.

[137] The *Heta*. See *ante*, vol. i. p. 60.

consent both of the Village Guild and of the superior Landholder or Revenue Officer; and although individual cases may have occurred, the only deeds of sale that have come down to us bear on the face of them that they took place on account of arrears. They were, in fact, the compulsory disposal of the Village Headship, in order to make good a default in the land-tax.

Such was the ordinary type of the Hindu Village in Orissa. But a special class existed, to which the foregoing pages in no way apply. These were the Bráhman Villages,[138] or rural settlements of priests, made by the monarchs of the Lion Line and Gangetic Dynasty. I have already entered so fully into the historical aspect of the case in Chapter v.,[139] that here it suffices to repeat, that each founder of a new National Religion brought in a fresh colony of Aryans or Bráhmans from the north. They established the new-comers upon grants from the Royal Domain; and besides these settlements on a great scale, the piety of the Princes, and the liberality of chiefs and private individuals, created during 1200 years a vast number of isolated religious foundations.[140] At this day, every district in Orissa is dotted with Bráhman Villages; and as the Bráhmans cannot themselves hold the plough, they cultivate by means of hired labour. The Village Community consists, therefore, of a number of families belonging to the Bráhman Caste who own the land, and a complement of low-caste families who till it, receiving either wages in rice, or a share of the crop. The Bráhman proprietors exhibit the most perfect type of the Privi-

[138] *Sásans* or grants.

[139] *e.d.* vol. i. pp. 240, 272, etc.

[140] *Cf.*, for example, the Monastic Institutions of Orissa, *ante*, vol. i. chap. iii. 116–122, etc.

leged Tenants, such as I have described in Párikud; the difference being, that while the piety of modern Hinduism lets them off at a small rent, it anciently gave them the land free and for ever. Generally speaking, the high-caste proprietary body jealously watches against anything like an under-tenure springing up; and the actual husbandmen do not advance to a higher position than that of our Scottish hinds, except that each one of them has a little home of his own, with a croft attached, and can marry and go through life with the comforts of a householder.. In some cases, however, these actual cultivators develop into small farmers, paying their rent in money or rice,—a common practice on Monastic Lands. The true Bráhman Village always lies in a fertile spot, buried away from the outside world amid magnificent groves of cocoa-nut, of which lucrative trees the Bráhmans claimed the monopoly, till our system of State Education began its levelling work. Such settlements form the most picturesque features of an Orissa landscape; and the English Officer, when he comes upon an unusually rich and well-wooded hamlet, knows at once that he is in a Bráhman Village.

The foregoing effort to describe the growth of proprietary rights, will strike men practically acquainted with the working of the system as in several parts unsatisfactory and incomplete. But this incompleteness truly represents the defective character of the evidence, which in many places conflicting, at some points fails the inquirer altogether. My own fear is, that I have rendered the account clearer and more systematic than my materials warrant. A fallacy lurks in the very terms; for English words referring to landed rights have acquired a fixity and precision which they could not

possess during a period of inchoate growth. In spite of every attempt at indefiniteness, the renderings of the native names of proprietary classes sometimes have a precision which the facts scarcely bear out; and even my vague word Tenure-holder is perhaps too forcible a translation for the Muhammadan *Talúq-dár*. The cave illustrations in Volume I., especially the frieze at page 182, came forth from the engraver's hand much more distinct than the originals. What the clean, sharp-cut lines of a copperplate did in their case, the precision of English terms has tended to do throughout this Chapter. The various rights which I have tried to set forth in orderly arrangement never existed as a formulated system. Everything was in a tentative, inchoate state, and armed violence from time to time swept away the landmarks of any regular development. It was a fermentation rather than a growth.

When the Province passed to us in 1803, our Commissioners found themselves lost in a jungle of conflicting incomplete rights. The difficulty of getting proper persons to engage for the land-tax disappeared after a very brief experience of fair English dealing.[141] The *quasi*-proprietors, or revenue farmers, did not long require to be 'searched out;' and the task became, not to find a suitable man to engage for the land-tax, but to decide which among a number of claimants had the best title to obtain the engagement. The first year of our rule (October 1803 to September 1804) passed in preliminary inquiries; but in the last-named month the Governor-General issued his Proclamation,[142] laying down the principles of the future land-management of the Province. An ex-

[141] *Ante*, pp. 60, 61.
[142] Dated 15th September 1804. O. R.

perimental settlement for one year[143] was immediately to be made; at the end of which a more careful one was to be made at a fixed rent for three years;[144] thereafter a still more exact one for four years,[145] at a slight increase of land-tax;[146] and, finally, one for three years[147] more, at a still further increase of rent where the lands proved capable of bearing it. At the end of these eleven years of tentative leases, that is, in A.D. 1815, a Permanent Settlement was to be made for all lands 'as may be in a sufficiently improved state to warrant the measure.'

This Proclamation,[148] and the Instructions based upon it, started from the Bengal idea of the country being in the hands of large proprietors. The settlement was to be made with the Landholders (Zamíndárs), except 'when the property in lands is disputed,' when it was to be made provisionally 'with the person in possession.'[149] But the local officers, charged with carrying out the settlement, found that the preconceived theories of the Calcutta Council by no means answered to the actual facts in Orissa. They could discover nothing like a homogeneous body of landholders, but only an immense growth of incomplete and often conflicting proprietary usages. Instead of the Province being 'in a sufficiently improved state' for a Permanent Settlement in 1815, it had not reached that point in 1836, when a thirty years' Settlement was formed; nor even in 1866, when that Settlement was again renewed for thirty years. Indeed, they found that a Permanent Settlement upon the model

[143] 1212 *Amli.* [144] 1213-1215 *Amli.* [145] 1216-1219 *Amli.*

[146] *i.e.* 'two-thirds of the net increase of revenue during any one year' of the previous eight years' Settlement. Proclamation, para. 3. O. R.

[147] 1220-1222 *Amli.* [148] Procl. para. 5.

[149] Instructions to Collectors, paras. 2, 3. O. R.

of the Bengal one in 1793 could not be transplanted into Orissa without a great sacrifice of Government interests on the one hand, and without serious injustice to the smaller tenure-holders and husbandmen on the other.

Putting aside very quietly the theories of distant bureaucrats, the local officers proceeded to laboriously construct a system in accordance with the actual facts. No rapid divergence took place from the plan laid down in the Proclamation, but the final result was something very different from what its framers had contemplated. Our officers found two systems still in working order in Orissa. The one was the Hindu plan of collecting the Land-tax by a staff of revenue officials, appointed by the Ruling Power, and dealing direct with the Village Heads; the other was the Muhammadan system of a *quasi*-proprietary body between the State and the Village Heads. The latter prevailed in the three Deltaic Districts (*Mughulbandi*), from which we expelled the Marhattás; the former in the demesne of Khurdhá, which Marhattás and Mughuls had alike left to the old Royal Family of Orissa. In both cases we accepted the *status quo*, and endeavoured to make our land-management really correspond with the facts.

And first of the three Deltaic Districts, from which we ousted the Marhattás in 1803. They consisted of two portions,—one under Military Chiefs or other grantees; the other under the regular civil administration. The first comprised the feudal tenures on the coast, the military fiefs on the western frontier, and various Forts with their attached lands scattered throughout the inland Districts. All these, along with the Tributary States, we left to their hereditary chiefs, generally at the old tribute or quit-rent, and in some cases even on easier

terms than under native rule.[150] These large tracts, when added to the Khurdhá demesne of the ancient Royal Family, amounted to about 19,000 square miles, leaving about 5000 square miles of the Delta as the field for our revenue administration. In these 5000 square miles, known as the 'Mughul Tract,'[151] the system of Fiscal Division obtained, with all the inchoate proprietary rights into which that system had developed. These rights vested in the person who, whatever his title, had enjoyed the office of collecting the land-tax; and *paying it direct into the Treasury.* All such persons, under whatever designation they had discharged this function, became under our system landholders *in capite* from the Company. A proprietary body was thus consolidated out of the tangled growth of *quasi*-proprietary rights; a body which included and represented all the various sorts of intermediate holders between the Ruling Power and the Actual husbandmen.

It was composed of the four following elements:

(1.) The six great Landholders,[152] representing Divisional Heads, who had succeeded in retaining the management of *one or more entire Fiscal* Divisions.

(2.) The 429 Tenure-holders,[153] who represented the Divisional Officers, whether Headmen,[154] or Accountants,[155] or Superintendents of Police,[156] who had retained the management, not of an *entire* Fiscal Division, but of a part of one. Most of these Tenure-holders paid their

[150] *Cf.* the case of Morbhanj; *ante*, p. 113. [151] *Mughulbandi.*

[152] *Zamíndárs*, in the strict technical sense of the word in the native revenue system of Orissa; *ante*, p. 223.

[153] Talúqdárs; *ante*, p. 224.

[154] *Bissois*, or *Chaudharis; ante*, p. 215.

[155] *Bhúi-múls*, or *Kánúngo-Wiláyati; ante*, p. 216.

[156] *Khandáits; ante*, p. 216.

revenue direct to the Treasury; but our system elevated a number of others, who had heretofore paid through the superior Landholders, into proprietors of this class.[157]

(3.) Village Heads,[158] or Accountants,[159] who had paid the Village Land-tax direct to the Treasury. The Marhattás dispossessed a number of the superior Tenure-holders, and collected direct from the Heads of the Village Guilds. Except when the dispossessed Tenure-holders could make out a strong case, we accepted the *status quo*, and accepted any Village Head who had paid the Village Land-tax direct to the Marhattás, as a permanent holder of his Village *in capite* from the Company. Invariably so, when he had paid for five years.[160]

(4.) A mixed multitude of grantees, whether civil or religious, settled upon assignments of land lying within Fiscal Divisions.

The first two classes represented the *quasi*-proprietors into which the old Hindu officers of the Fiscal Division had developed under the Muhammadan Governors. The third represented the similar process which had taken place with regard to the officers of the Village Guilds during the Marhattá occupation. The fourth class formed a great public testimony of our British tenderness for vested interests, of whatever sort; a testimony which the people of Orissa thoroughly appreciated.

Having thus selected a number of Landholders *in capite*, in accordance with the actual facts, we proceeded to mould them into a homogeneous body by giving the same rights to all. We erected their *quasi*-hereditary,

[157] Instructions to Collectors, 1864, para. 7. O. R.

[158] Known in our Settlement Papers by their Muhammadan name of *Mukaddams*, and their tenure as *Mukaddami.* They were the Dalbeharas, Sarbarákars, Padháns, etc., of the native system. *Ante*, p. 249.

[159] *Kánúngos.*

[160] Decision of Sadr Díwání, June 24, 1814.

quasi-transferable office of managing the land and transmitting the land-revenue, into a full proprietary tenure. The abstract ownership had always vested in the ruling power, and this we made over to the Landholders, except that we retained the power of raising the land-tax. Even this power we placed under severe restrictions, and our present system of thirty-year leases divests us of any means of exercising it except three times in a century. In short, out of the inchoate proprietary usages described on page 228, we built up a firmly coherent title. The Orissa Landholders' Right is now (1) absolutely hereditary, without need of any sanction or recognition of the succession by the State; (2) perfectly transferable by sale or gift, so far as the State is concerned. (3) The Landholder pays during the term of each Settlement only the land-tax fixed at the commencement; so that the increase of tillage, owing to the growing pressure of the population on the soil, with the rise of rents proceeding from the same cause, and all profits due to the enhanced price of rural produce, or to the canals and the increased facilities for transport and exportation, go to him, and not to the State. These profits and enhanced rates amount to an ample revenue, even if the Landholder himself does nothing for his estate. While he sleeps, his income increases. If he is an improving Landlord, he can augment his profits almost indefinitely. (4) In return, he is responsible for the whole land-tax of his estate, except in years of flood or famine, when Government remits part of its claims. If he falls into arrears, the Revenue Officers proceed not against his person, but his tenure; selling his estate by public auction, and handing over to him the balance after paying the arrear.

The result of this system has been to render land an intensely marketable article in Orissa. During the first quarter of a century of our rule, when settlements for short terms prevailed, little progress can be discovered. The Province lay constantly under the peril of an enhancement of the land-tax at the end of every few years. Accordingly the land did not acquire the character of a marketable commodity of fixed value, and few changes in its distribution took place. But the thirty years' Settlement of 1836 gave a definite market value to the soil; a value which the renewal of that Settlement in 1866 has greatly increased. It became the ambition of every well-to-do peasant and shopkeeper to buy land; and instead of burying their little hoards of money under their floors, they invested them in the purchase of two or three fields. The same set of causes brought great capitalists from Bengal into Orissa: so that, on the one hand, there has been a tendency for the land to accumulate into a few vast estates; and, on the other hand, a tendency to distribute it into small holdings. A body of great proprietors has sprung up, many of them absentees, who live in luxurious villas around Calcutta, with mirror-covered walls, and every latest luxury from London or Paris. These gentlemen look on their Orissa Estates merely as an investment for their capital, to be managed by a resident steward; and, if perfectly convenient, to be visited every five or ten years. But, at the same time, a great disintegration of landed property has taken place; and the old system of joint family management has broken down. Every field has now its own value, and personal management by an individual owner makes more out of it than corporate management by the Family. Accordingly, instead of

inheritances being managed by Families in the undivided state, each member claims to have his own share under his own control, and sues for registration as a separate proprietor on the Government rent-roll.[161] Not only, therefore, has the number of estates greatly increased since 1836, but the number of recorded proprietors has multiplied in a still greater proportion. Thus, in 1805 the number of estates was 2275, and the number of proprietors or registered coparceners 2517. In 1829, after certain additions of territory, the estates had only risen to 2380, the proprietors or coparceners to 3651. But after the thirty-years' Settlement of 1836, the re-distribution of the land went on more rapidly. In 1850 the estates numbered 3623, the registered proprietors or coparceners 8020; and in 1870, after the renewal of the thirty-years' Settlement in 1866, the estates had increased to 5134, and the registered proprietors or coparceners to 14,231. Since 1829, therefore, the number of separate estates have a little more than doubled, while the registered proprietors and coparceners have multiplied by four-fold. Land is now as marketable an article in Orissa as paddy or piece-goods. Under native rule, the *quasi*-proprietary right was never worth above three years' purchase; when we obtained Orissa, the soil was worth only the amount that could be realised from the crop standing upon it; land in Orissa now sells for fifteen years' purchase and upwards. Instead of an estimated allowance of five per cent. of the land-tax, and an actual profit of 8 to 25 per cent., the landholders now enjoy from their estates an income never less than 50 per cent. of the land-tax, and sometimes more than the double of it, or 200 per cent.

[161] By the process known as *batwára*. See App. III. 46, 47.

In this way Individual Rights in the soil have sprung up and consolidated, at the expense of the Government ownership on the one hand, and of the old Hindu Family System on the other. In the primitive organisation of the Kandh Hamlet, the Family is all in all, and the Individual nowhere appears. In the Hindu Village, the Family in its 'Undivided State' still forms the ultimate unit; but a unit self-acting only in domestic concerns, and subject in its outward relations to the higher organism of the Village Guild. In the Kandh system we see only Families; in the Hindu system we see Families and Village Guilds. Nevertheless in the latter some faint premonitions of nascent Individual Rights may be detected; for although the Undivided State was the normal condition of the Hindu Family, yet separations could take place. These separations have grown more and more common under British Rule; the corporate Family disintegrating into its members, each with his own Individual Rights. The Village Guild has during the same period lost much of its character as a self-acting Organism, its rights and functions passing to the Landholder. Instead, therefore, of the two great corporations of the Hindu rural system (the Corporate Family and the Corporate Village), we now have two sets of Individual Rights; to wit, the Rights of the Individual Landholder, and the Rights of the Individual Tiller of the soil.

At one time it seemed as if this aggrandisement of the Individual would involve a sacrifice not only of the State Ownership and of the rural Corporate System, but also of the rights of the Husbandmen. As in the Permanent Settlement of Bengal, our Orissa officers defined and consolidated the title of the Landholders, and left

the rights of the Cultivators unascertained. The former received a legislative *status;* the latter did not. Two circumstances, however, mitigated the evil effects of this omission in the case of Orissa; namely, the abundance of unoccupied land, and the hereditary status of the Resident Cultivators. The firm Proprietary Title which we gave to the cultivators absorbed several subordinate rights; for example, those of the Village Heads, who had not been themselves admitted as holders *in capite.* Such persons were coldly referred to the Civil Courts if they wished to assert their claims;[162] and one of our most careful officers recorded his conviction that we ourselves had failed to put them in a proper position to enforce these claims by not defining their rights.[163] The Proprietors (Zamíndárs) began a silent but steady extermination of all intermediate holders between themselves and the actual cultivator.

On the other hand, it may be urged that the getting rid of intermediate holders had the wholesome effect of lessening the number of the non-cultivating class, who lived off the labour of the Husbandmen. Every intermediate holder through whose hands the land-tax passed retained a part of it, and every tenure-holder who in any way came into contact with the cultivator squeezed him. But whether for good or for evil, the process was inevitable under a system of Individual Rights. The dispossessed intermediate holders represented either old revenue officers (like the Divisional Accountants), or the officers of rural corporations (such as the Village Heads). When the systems of managing by revenue officers and rural corporations had given place to a Proprietary Body,

[162] Minute of 15th October 1821, paras. 87, 88.
[163] Mr. Melville's of 22d March 1819. O. R.

the extermination of the representatives of these ancient systems became only a question of time. Almost all our best officers had a deep compassion for them; but in spite of reams of kindly paragraphs in their favour, they could not prevent, and indeed could scarcely retard, the sacrifice of intermediate holders before the spread of Individual Rights.

They succeeded better in their efforts to protect the husbandmen. After various suggestions and experiments, it was determined to place the Cultivator's Right of occupancy on precisely the same footing as the Landholder's Right of Ownership, by giving him a title direct from Government. Accordingly, at the Settlement of 1836, all Resident Tenants and hereditary cultivators of whatever sort who chose to apply, received a palm-leaf lease stating the quantity of land and rent. Notwithstanding the great increase of population, about a third of the husbandmen are still supposed to hold their land on this firm tenure. Until the results of the present census are obtained, any more definite estimate would be beyond our knowledge. In Cattack District, however, 37,242 such leases were granted at the Settlement of 1836, aggregating 163,271 acres of land; and the Collector of Balasor calculates the whole number of cultivators within his jurisdiction at 80,000, of whom 30,000, or three-eighths, have Occupancy Rights.

In the Appendices I have dwelt in detail upon the husbandry of Orissa, the size of the holdings, the status of the Cultivator, and his mode of life.[164] But I must not pass from the subject here without pointing out the increasing need which the husbandmen now have of legislative protection, if they are to be maintained in

[164] *Vide* App. I. 13-19; II. 43-56, and 59-64; III. 80; IV. 128-157.

their rights. The MS. Records show that, at the time of our conquest, the Orissa cultivator when oppressed had but two alternatives, 'submission or flight.' It was a sufficiently miserable choice, but now he has scarcely a choice at all. Then, the land exceeded the number of peasantry to till it; and when a Resident Husbandman broke down under the extortions in his own Village, he could always get land at cheaper rates as a Non-Resident Cultivator in another. But the increased pressure of the population has rendered it no longer a question how the Proprietors can collect peasants to till their land,[165] but where the cultivators are to get land to till. The landholders have thrown out a colony of husbandmen upon every patch of land; and such rural Settlements or Villages have increased from 11,915 in 1824, to 19,530 in 1869–70. In Balasor District, the part of Orissa nearest to Bengal, and most subject to progressive influences, their number has risen from 3668 in 1842, to 9627 in 1870; 'an indication of the tendency of proprietors, who have subdivided their estates, to make as much as possible of their respective parts, by setting up new villages or collections of homesteads on each separate fragment.'[166] While the Kandh country has not one village to every two miles, Balasor has $4\frac{3}{4}$ to each mile. In the former, the pressure of the population in 1840 was $15\frac{3}{4}$ persons per square mile; in Cattack District it is now 407. But we await the census.

When the Province passed to us, the unattached cultivator who entered the general market for land could get a holding at much cheaper rates than the Resident

[165] *e.g.* Commissioners' Circular of 13th Sept. 1804, para. 6, encourages the collecting cultivators for the Company's deserted villages with 'a severe penalty' against 'enticing' tenants from its other lands. O. R.

[166] App. II. 59.

Husbandmen in the same Village. Now the position is reversed, and more than one proprietor has told me that it is the unattached cultivator who pays highest for the same quality of soil. In short, the market rates of land have risen above the old customary rates, and the Right of Occupancy has acquired a pecuniary as well as a social value.

In the Deltaic Districts of the 'Mughul Tract,' we have therefore, out of a mixed mass of inchoate claims, built up a firm system of Proprietary Rights. The Khurdhá demesne of the ancient Royal Family exhibits a different form of land-management. This territory remained under its own Rájás till 1818, when their rebellion led to its confiscation. The Hindu plan of managing the land-revenue passed to us intact, the Company simply stepping into the place of the Khurdhá Family as lord of the demesne. Under the native régime, the Prince or his Prime Minister[167] administered it by means of ten great Fief-holders,[168] each of whom had a definite area under his charge. Each of these ten Fiefs[169] was subdivided into minor jurisdictions termed Forts;[170] and the lands of each Fort included a number

[167] The *Pátrá* or *Mahápátrá*. [168] *Kiladárs.*

[169] *Kilas*, now called *Zillahs*, viz. Bánpur, Kuhúri, Rameswar, Balbhadrapur, Tapang, Kuspálá, Mánikgorá, Panchgarh, Dándimál, and Nij Khurdhá (or the territory lying round Khurdhá itself). I have to thank Mr. Manson and Mr. Testro, two officers who have recently been in charge of the Subdivision, for valuable letters as to its condition and constitution, and for a number of selections from the Local Records, bearing on points which their communications suggested. The great storehouse of facts with regard to its early state is Mr. Ewer's Report in 325 folio pages, dated 13th May 1818, with the subsidiary documents of that and the following year. Of almost equal importance is the Settlement Report by Mr. Collector Wilkinson, dated 24th October 1836, with its voluminous enclosures. A number of valuable papers, by Mr. Commissioner Ravenshaw, Mr. Commissioner Molony, and Mr. Geddes, lately acting Collector of Purí, exist on points connected with its present administration, for extracts of which I am further indebted to Mr. Testro.

[170] *Garhs.*

of Villages.[171] The Prince or his Prime Minister received the revenue from the ten holders *in capite* of Fiefs; the Fief-holders collected it from the Heads of Forts[172] within their respective jurisdictions; the Heads of Forts gathered it from the various Heads of Villages,[173] and the latter levied it from the husbandmen.

The main features of this system still survive in our management of Khurdhá. Instead of the Prince or his Prime Minister, a Chief Land Steward,[174] appointed directly by Government, with his headquarters in Khurdhá town itself, receives the revenue and pays it into the Treasury. Instead, however, of collecting it from ten principal Fief-holders, these latter have given place to five Chief Accountants, each with a definite jurisdiction, including on an average two of the old Fiefs. These Accountants,[175] like their Chief Land Steward, are purely Government servants, and spend most of their time in travelling about their respective jurisdictions, and going to and fro between them and the Chief Land Steward's office. Their business is, as Government Officials, to see that the revenue is fully realised; but they have no personal responsibility for making good shortcomings. Beneath them the ancient organization remains untouched. The Fort-holders[176] still gather in the yearly land-tax from the Village Heads within their jurisdiction, and pass it on in a lump sum; for which duty they enjoy a

[171] *Grams* or *Mauzas*.

[172] *Sadr Sarbarakars;* otherwise *Dalbeharas*, with an organization of *Dalkarans* (Accountants), *Behara Padhâns*, and *Dalais* or officers of the peasant militia (*Paiks*). The *Paiks* were settled chiefly around the Fort on easy tenures. But it should be remembered that an attempt like this at a reconstruction of the details of a system which has disappeared, is liable to two sources of error—to mistakes arising from defective evidence, and from incorrect induction.

[173] *Mufassil Sarbarakars.*

[174] *Tahsîldâr.*

[175] *Kânúngos.*

[176] *Sadr Sarbarakars.*

liberal grant[177] of free land, and a small percentage. Finally, the Village Head,[178] each in his own village, levies the land-tax from the husbandmen, and is personally responsible to Government for making good the full amount.

The Village Head, therefore, forms the keystone of the whole superstructure. He gives a bond for the total rent of all the cultivators, less his percentage, 'upon which bond he is sued in case of default.'[179] Nominally the agent of Government, he practically acts in many ways as the representative of the Village. In years of flood or drought, it is he who urges the need of remissions of the Land-tax; and unless he takes up the cause of the Husbandmen, and applies on their and his own behalf, no remission is made. Theoretically, he holds his office only during good behaviour, but practically it amounts to a hereditary tenure, so long as he continues to pay the full amount of land-tax. His emoluments consist (1) of a percentage on the collections; (2) a grant of rent-free land; (3) to a variety of little profits, such as a share (often one-half) of all fish caught in the Village waters, and of all game taken in the jungles; (4) to any waste or deserted land within the Village boundaries, and to the holdings of cultivators who leave no heirs.

The last item is a very important one. As the Village Head is responsible for the whole Government Rental of the Village, it follows that he shall have the means of keeping it fully cultivated. He can let out, or himself bring under tillage, any waste or deserted land, paying to Government a nominal quit-rent of 6d. per acre,[180] and

[177] *Jághír.* [178] *Mufassil Sarbarakar.* [179] Mr. Testro.
[180] Four *anas* per *mán;* said to be fixed verbally by Mr Wilkinson in 1836.

making as much as he can out of the husbandmen to whom he sublets it. The same principle assigns to him the holdings of heirless cultivators; for if such holdings were allowed to remain untilled, while he had to make good the whole land-tax of the village, the system would break down. Most of the cultivators hold their land by leases direct from Government; and it is clear that, by sale or mortgage of their lands, they could prevent them lapsing to the Headman, in event of their dying without heirs. But to this practice the Village Heads object, on the ground that if the husbandmen can transfer their holdings without taking the Village Head's consent, a cultivator might sell or mortgage all his best lands, and then default for the remaining poor ones, thus weakening the Village Head's security for being able to pay the entire land-tax. The question as to whether the husbandmen have or have not a transferable title to their holdings, has therefore become of great practical importance. On the one hand, such transfers have from time to time taken place under British Rule, without calling forth any disclaimer on the part of Government. On the other, the Husbandmen had clearly no transferable right under native rule; and the leases by which he holds his lands from us have not created any such right, and indeed give no colour to any claims to it.

But in other respects, these leases have greatly improved the position of the cultivator. They put a stop to a multitude of cesses and extortions, for each man knows exactly how much the Village Head can legally call on him to pay. The lapse of time has, however, destroyed a large proportion of these frail palm-leaf documents; and the renewal of the Settlement in 1866 for other thirty years, without issuing fresh leases, will

soon render it impossible for one-half the cultivators to produce their title-deeds. The inconvenience of this would be great if the Khurdhá peasantry resorted as freely to the Courts as landlords and tenants do in Bengal; but it is little felt in an isolated country, where custom and hereditary usage still reign supreme.

In Khurdhá, as in the 'Mughul Tract,' Individual Rights have been aggrandized at the expense of corporate institutions. Formerly, each husbandman had to give so many days' labour yearly to the maintenance of the Village embankments, reservoirs, irrigation channels, and other works of public utility. But now that the Village Guild, or its representative the Headman, cannot compel the cultivators to give forced labour, these works have in many places fallen into disrepair. In others, their maintenance has resolved itself into a chronic squabble. Very much the same thing took place in our Districts of the Mughul Tract;[181] and while one school of officers regret that our system does not provide machinery for enforcing these old communal duties, others maintain that we do wisely in withholding it. They argue that our non-interference allows 'these customs to remain in force just so long as the villagers are agreed as to their utility,'[182] and that it puts a stop to the abuses incident to a system of forced labour. Under that system in Khurdhá, 'a carpenter or blacksmith was often forced to adhere to his trade, although he might desire to engage in cultivation.' A great man would seize on all the skilled labourers, sweep them off to wherever he had a work in hand, and compel them to finish it. Tradition declares that the lovely Sun Temple at Kanárak owes its existence to an act of tyranny of

[181] *Ante*, p. 182. [182] Mr. Manson.

this sort, a whole generation of stone-carvers and masons having been driven away to the lonely coast, where they lived and died as forced-labourers.

On the other hand, there can be little doubt that our officers in Khurdhá, while building up the fabric of individual rights, overlooked the corporate character of rural institutions. They defined and strengthened the position of the single cultivator, and gave him fixed rights such as he had not enjoyed under native rule. But they failed to realise that he formed one of a Guild which had to act in many matters in a corporate capacity. They left a whole series of communal rights undefined, such as the distribution of the village jungles, the village fish, the village game, the village fruit-trees (particularly the mangos), and even the village waters for irrigation. In all these matters the Village Guild acted in its corporate capacity, not only as to the distribution of its good things among its own members, but also in defending them against the encroachments of other Village Guilds. Even at the present day, the corporate public opinion exerts in some Khurdhá Villages a healthy influence. Popular Courts of Equity[183] soften down the rigid application of our Regulation Law, and restrain unscrupulous mortgagees from pushing their newfangled legal rights to an oppressive length. Cases frequently occur of bills being taxed by these Village Committees, usurious interest docked off, and fraudulent purchasers forced to give up their prey. But the aggrandisement of Individual Rights has everywhere weakened this power of corporate action, and in many places destroyed it altogether. Accordingly, while some Villages still manage such matters efficiently and peaceably, others have lost the power to obtain any

[183] *Nyáya*, as opposed to our *Aín* law.

satisfactory adjustment of them. This, too, in spite of the wrestling guilds and dramatic corps, by which the Khurdhá villagers indulge their old love of sport, and keep up their character as the descendants of a peasant militia. Such Village societies, for the purpose of amusement, sword practice, and manly exercise, have survived the power of corporate action in the graver business of Village life. The old communal rights, which ought to be a bond of union and a well-spring of good feeling, have in many villages become a source of bitter recrimination and life-long feuds. The British Government generously made over all these communal rights to the Villages, not foreseeing that under its system of Individual Rights the Villages in Khurdhá would sooner or later lose their power of corporate action.

Nevertheless, our officers alike in Khurdhá and in the 'Mughul Tract' constructed their land-system not according to any preconceived pattern, but according to the actual facts. In Khurdhá, where they found the Hindu plan of administering by means of official machinery still intact, they built up their own system upon that plan. In the 'Mughul Tract,' where they found that the old official mechanism had developed into inchoate proprietary rights, they constructed our administration on a basis of complete proprietary rights. In this power of adapting themselves to local usages, and in this determination to make their system a true representation of the actual facts, lies the secret of the success of Englishmen in India. Our present land-management of Orissa is the outcome of institutions and usages which existed centuries before we set foot in the Province. It is a mature growth, not a manufactured article; and while every ten years will see, or ought to see, some

change in the land-law, such changes, if wisely managed, will be the result of development from within, not of importations from without.

Private Right in the soil has proved a very costly plant to rear. It admits of no rival, and its vigorous growth has well-nigh choked the State Ownership in the land. Instead of a right to a yearly share of the harvest, amounting at the present day, under some of the Hindu Rájás in Orissa, to three-fifths,[184] a bare quit-rent is all that remains to the British Government, not equal to one-tenth of the crop.[185] I have shown in Volume I., by a calculation from the value of the ancient revenue in gold,[186] that the native dynasties drew an income from Orissa that represented, in purchasing power, many times the revenue which we now raise; and a work published since that Volume went to press confirms this vew.[187] The resources which were formerly concentrated in the hands of the monarch are now diffused among the classes to whom we have given permanent rights in the soil. Instead of a splendid court, with sixteen ministers of state, a vast army and feudal militia, a

[184] *Ante*, vol. i. p. 34. [185] *Ante*, vol. ii. p. 166.

[186] *Ante*, vol. i. pp. 316 to 330.

[187] The MS. of vol. i. (excepting chapter i.) was sent home from India in 1870 and early in 1871. Since then I have seen Mr. Thomas's 'Revenue Resources of the Mughul Empire.' My statement of the Orissa Revenue under native rule was as follows :—£406,250 in twelfth century, calculated from the gold equivalent, with subsequent returns from other sources, at £435,319, £368,333, £537,495, £570,750, at various times (*ante*, vol. i. pp. 316, 323, 324). Mr. Thomas, in his recent Monograph, gives six separate returns for different periods, viz. £500,000 (A.D. 1648); £563,950 (A.D. 1654); £727,000 (A.D. 1663); £355,802; £570,750 (A.D. 1697); £357,050 (A.D. 1707)—Revenue Resources of Mughul Empire, p. 53. Several attempts have been made in India to controvert Mr. Thomas's figures, but so far without success. It seems to me that at least in some cases these high returns must include the arrears of past years as well as the current revenue.

crowded seraglio, and a train of courtiers, all living by the sweat of the husbandmen, the British Government of Orissa can only point to an administration which barely pays its own cost, to a freer people, to a peasantry secured in its occupancy-tenures, to a stable Proprietary Body, and to a great growth of Individual Rights.

I cannot close this chapter without once more urging the claims of the Indian Records. A nation that has done a really great work, like the building up of the Indian Empire, may well be tempted to a magnanimous silence. It can afford to bear misrepresentation, just as an author can bear unjust criticism, and utter no word, if he knows his book is true, and that he has based it on better evidence than that available to his critics. Were this not so, it might be a serious matter that Indian History is still written, not from the contemporary records of eye-witnesses, but from the passionate declamation of Sheridan and Burke. The vehement utterances of public prosecutors and party leaders are still accepted as evidence of events that took place at the other side of the world. But 'deeds are greater than words. Deeds have such a life, mute but undeniable, and grow as living trees and fruit-trees do.' With a harvest of action like India to point to, England may safely oppose a noble reticence to calumny. But it ought not to forget that these buried records contain the materials for a wiser and more enlightened administration of the Indian races. They exhibit the facts, and it is only by bringing our system into accord with the facts that we can give it self-sustaining vitality. In these crumbling manuscripts lie a hundred high capabilities and possibilities of better government, but capabilities in

an embryo state, hidden away from the light and from the free play of human intelligence. Putting aside, therefore, the national gain of having a true narrative of our dealings with India, and without regard to the new fields of knowledge which such a narrative would open up, the task of resuscitating the Indian Records presents itself in the light of a duty to the Indian races. We shall govern them better only when we know them better; and the feeling of uncertainty now so rife touching our position in India, results in a large measure from ignorance regarding the sentiments of the people, their usages and modes of thought. The Manuscript Archives alone can show how far our system is grounded upon pre-existing native customs, and how far it possesses that stability which springs from being in accord with the actual facts. In Orissa they disclose the process which has converted the most persistently troublesome Province of the Mughul Empire into the most peaceful one of our own. Every class connected with the soil has found its title strengthened by contact with British Rule. What were formerly uncertain claims have grown into valuable marketable rights. By a wise limitation of our State Ownership we have reared up a permanent Proprietary Body, composed of mutually hostile classes; but each of which, from the great seigneurs down to the Resident Husbandmen, holds its lands under documents issued by British officials. While, therefore, the structure has its foundations in the depths of immemorial usage, it stands above ground as a conspicuous and beneficent creation of English Rule. In the two centuries during which Orissa formed the basis of chronic revolt against the Musalmáns, the landed classes had no rights to lose. The local archives

explain how a breakwater against rebellion and disorder has now been built up.

In writing this book, a conviction has painfully forced itself home to my mind, that no permanent work can be done without a systematic survey of the Records, on a much larger scale than any single man can effect. When the same hands have to mark and fell the timber in the forest, to drag it out to the open, and then to build it into a house, the result can scarcely hope to satisfy the canons of art. One is so glad to find materials for the edifice, as to be constantly tempted to exaggerate their importance, and to give them a more conspicuous place than they deserve. Small time can be spent on testing the soundness of the rafters and beams. Until a division of labour takes place, the materials being collected in India, and then subjected to the leisurely action of European research, no exact or really permanent results will be obtained. Under the present system, some Indian investigators may do their work more skilfully than others; but their highest effort will in the end prove little more than a neat-handed backwoodsman's cottage, destined to give way to more stately and enduring edifices, on the approach of an organized system of labour.



APPENDICES.

APPENDIX I.

STATISTICAL ACCOUNT OF THE DISTRICT OF PURI.

GEOGRAPHICAL.—Purí District forms the southernmost division of Orissa. It lies within the twentieth and twenty-first degrees of north latitude, and within the eighty-fifth and eighty-sixth of east longitude. It is bounded on the north by the Tributary States of Dompárá, Bánki, and Khandpárá; on the east by the District of Cattack; on the south by the Bay of Bengal; and on the west by the Tributary State of Ranpur and the Madras District of Ganjám. Its greatest length from Nandlá, on the south-east of the Chilká, along the coast to the mouth of the Káloí River, beyond Marichpur, is ninety miles. Its total area is 2504 square miles, and its population 540,995 souls.

A belt of sandy ridges, the home of the black antelope, stretches along the shore, and varies from four miles to a few hundred yards wide. The District may be divided into three tracts, west, middle, and east. The western extends from the right bank of the Dayá across the stone country of Dándimál and Khurdhá, till it rises into the hills of the Tributary States. The middle is the delta, watered by the Bhárgaví branch of the Mahánadí, and comprises the richest and most populous Fiscal Divisions of the District. The eastern portion runs from the left bank of the Kusbhadrá to the boundary of the Cattack District. It is less thickly peopled, and in the extreme east loses itself in the jungles around the mouths of the Deví River.

The western division contains the only mountains that are to be found in the District. A low range, beginning in Dompárá and running south-east in an irregular line towards the Chilká Lake, forms a watershed between Purí District and the valley of the Mahánadí. Almost

all the peaks, sufficiently important to have names, are within the subdivision of Khurdhá. Most of them are covered with dense jungle. They are too steep for carriages, but except where the bare rock is exposed towards the summit they are accessible to ponies. Their slope may, therefore, be put down at seldom exceeding sixteen degrees. On the north of the Chilká they are bold and very varied in shape. They throw out spurs and promontories into the lake, forming island-studded bays, with fertile valleys running far inland between their ridges.

The middle and eastern divisions consist entirely of alluvial plains. They form the south-western part of the Mahánadí delta, and are watered by a network of channels, through which the most southerly branch of that river finds its way into the sea. This branch is called the Koyákhái, and the following scheme exhibits the river system into which it divides:—

Koyákhái	Kusbhadrá	Práchí Kusbhadrá	Kusbhadrá	Bay of Bengal.
	Bhárgaví	Bhárgaví	Bhárgaví	Chilká Lake.
		Nun Dayá	Dayá	

The whole of these rivers are navigable by large boats during the rainy season. None of them are deep enough for boats of four tons burden throughout the whole year. Only one of them, the Kusbhadrá, enters the sea. It follows a very winding course, and is of little value for navigation. Its bed has silted up, and its floods devastate the surrounding country. The three rivers most important to the people of Purí are the Bhárgaví, the Dayá, and the Nun. These all enter the Chilká Lake after running widely diverse courses. In the rainy season they come down in tremendous floods which burst the banks and carry everything before them. In the dry weather they die away till nothing is left of them but a series of long shallow pools in the midst of vast expanses of sand. Their banks are generally abrupt, and in many parts are artificially raised and protected by strong dykes. The total length of Government embankments in the Purí District amounted, in 1866, to $316\frac{3}{4}$ miles, with forty-three sluices, maintained at an annual cost of £7, 16s. per mile. The following table shows the capacity of the principal rivers in the rainy season, and the number of breaches which they made in their embankments in 1866:—

PURI RIVERS AT A SECTION HALF-WAY BETWEEN CATTACK CITY AND THE SEA.

Names of Rivers.	Fall per mile at point of section.	Mean depth of section.	Calculated velocity by Etelwyn's formula.	Calculated discharge per second.	Number of breaches made in 1866.
	Feet.	Feet.	Feet.	Cubic Feet.	
Kusbhadrá,	1·70	10·64	5·40	9,855	8
Práchí,	1·70	10·43	5·40	9,580	
Bhárgaví,	1·45	15·42	6·00	59,220	8
Dayá, .	1·70	16·78	6·80	33,100	36[1]
	Av. 1·64	Av. 13·31	Av. 5·90	111,755	52

[1] Including the smaller tributaries.

It will be seen, therefore, that of the 111,755 cubic feet per second poured down upon Purí, the Kusbhadrá, with its branch, the Práchí, obtains only 19,435 cubic feet with which to water the eastern part of the District. Of the remaining 92,320 cubic feet, about two-thirds is carried off by the Bhárgaví, and after watering the middle part of the District, finds its way, by a most tortuous course for many miles almost parallel to the sea, into the Chilká Lake. On its way it forms a series of marshes and backwaters; one of which, the Sar Lake, to the north-east of Purí Town, is four miles long from east to west, and two miles broad from north to south. It has no outlet to the sea, and is separated from it by desolate sandy ridges. It is utilized neither for navigation, nor to any extent for fisheries. The sandy desert that divides it from the Bay is destitute of population; and on the north, a few miserable hovels at wide intervals dot its shores. Its waters, however, are used for irrigation when the rainfall proves deficient.

The Dayá spreads its 33,000 cubic feet of water per second over the south-western part of Purí. It also receives a few small tributaries from the watershed which separates the district from the upper valley of the Mahánadí. During the rainy season boats of twenty tons burden carry on a traffic between Cattack and the Chilká Lake by means of its main stream. Towards the Chilká it divides into many channels, and the Fiscal Divisions of the lower part of its course are annually devastated by resistless floods. Full details will be found of one of these calamities in the latter part of chapter II. of my work on Orissa. I have also explained in that chapter the total cost to Government of inundations in Purí District; amounting, for two items alone, to £79,963 in fifteen years, or equivalent to a charge of ten per cent. on the total land revenue of the district. In addition to this large sum I have

shown that the single flood of 1866 destroyed standing crops to the value of £643,683 in Purí District alone, notwithstanding that 10,620 acres of fertile land are permanently left untilled for fear of inundation. The truth is, that the Maháanadí, in time of flood, pours double the quantity of water into the Purí rivers that they are capable of carrying down. The result is, that the surplus overflows in spite of embankments and protective works. The whole District lives in readiness for such calamities; and the deaths by drowning reported to the police, during the three years ending in 1870, averaged only 117 per annum. These figures, however, by no means represent the total loss of life from this cause. The excessive floods depreciate the productive powers of the soil; and in the localities most subject to inundations, the rents are brought down to one-fifth of the rates obtained for the same quality of land in parts of the district protected from the violence of the rivers. Of the twenty-four Fiscal Divisions of the District, twelve are still so completely at the mercy of the rivers that more than fifty per cent. of their area was flooded in 1866. In Sayyidábád and Domárkhand, two Fiscal Divisions of which less than twenty-five per cent. are liable to inundations, the average rate of two-crop land is 3s. 4d. per acre. In Chaubiskud and Sirái, two Fiscal Divisions of which more than fifty per cent. are liable to inundations, the average rent for the same quality of land is 1s. 9d. In Domárkhand the average rate of winter rice land is 4s. 9½d; in Chaubiskud and Sirái, it is 1s. 5¼d. If, instead of the average rent, the highest rates were taken in these Fiscal Divisions, the difference becomes still greater.

Lakes.—The only two lakes of importance in Purí are the Sar and the Chilká. The former I have briefly described as a backwater of the Bhárgaví. To the latter I have devoted chapter ii. of my Orissa. The water supply of the District is used in a few of the Fiscal Divisions for irrigating the lands. The difficulty, however, is to keep it from flooding the crops, rather than in leading it on to the fields. Solar salt is extensively manufactured from the brackish water of the Chilká, and the process is fully described in chapter ii. About one-fiftieth of the whole inhabitants live by fishing. No important fishing-towns have grown up, however; and the fish caught are consumed by the local population. The right of fishing is vested by Government in the landholders, and is included in the general settlement for the land revenue of their estates. The total sum paid into the Treasury under this head amounts to £157, 10s. a year.

Forests.—There are no revenue-paying forests, but the jungles in the hilly part of the district yield honey, beeswax, tasar silk, the dye called gundi, and various medicinal drugs. Tribes of Savars,

Kandhs, and Báuris live by trading in jungle products. The timbers of the district comprise sál, sísu, ebony (*kendu*), jack-wood, mango, piásál, kurma, and all the common varieties. Bamboo is plentiful. The rattan-cane abounds. The palms include the cocoa-nut, palmyra, and date. Oil is manufactured from the cocoa-nut and pulang among trees, and from rape and mustard among seeds.

THE ANIMAL KINGDOM.—In the open part of the country the larger wild beasts have been pretty nearly exterminated. Of the following list several are now becoming rare :—Tigers, leopards, bison, buffalo, wild cows, hyenas, bears, wild pigs, wild dogs, antelopes, sambar-deer, hog-deer, and kurangas (small deer). Alligators swarm in the lower parts of the rivers. The sum spent in keeping down tigers and leopards does not exceed £5 a year. The number of deaths from wild beasts and snakes formally reported to the police amounted to ninety-three in 1869. Snakes are very numerous. Among pythons are the ajagar and ahiráj. Among deadly snakes the black cobra (*keutá*), the tampa, the gokhurá, and the spotted slow-killing borá. Among water-snakes the dhemná and dhanrá, etc. The nág is the generic name for a variety of serpents. Among smaller wild beasts are jackals, foxes, hares, monkeys of many sorts, porcupines, and squirrels in immense numbers. Among land birds are the pea-fowl, jungle-fowl, partridge, golden plover, ortolan, dove, green pigeon (*párá*), owl, vulture, eagle, hawk, kite, crow, and jay, besides the ordinary kinds of smaller tree-birds. On the Chilká Lake are found the flamingo, wild goose, Bráhmaní duck, wild duck of various sorts, teal (*báli-hansa*), snipe, pánikuá, crane, and gaganbhel. Of paddy birds the five following sorts are most common—The kantiyábag, the dhalá, the rám, the kuji, and the tár.

Of fishes there is an endless variety. Among salt-water fish, the most important are the khaingá, dáhángirí, ilsá, or as it is usually called by Europeans, hilsa; the khurántí, chandí, bhektí, patá, jhur-anga, kantábalangí, phirkí, kokalí, and sahália. Among fresh-water fish are the rohí, bhákur, gágar saul, käu, torí, bamí, karandí, ratá, báliá, guáchopí, and the chital. There are also turtles, tortoises, crabs, prawns, and oysters. There is no trade in wild-beast skins; nor are the *feræ*, with the exception of the fisheries, made to contribute in any way to the wealth of the District. The oysters are large and coarse, but palatable when cooked, and not unpleasant even in their raw state, after the eye has become accustomed to their size and colour. No attempt has been made to improve the oyster-beds, or to turn them into a subject of commerce.

THE POPULATION.—A census roughly taken by the police in 1854,

returned the population of Purí District at 700,000. In 1866, after the famine, the houses were counted by the police, and, allowing five inhabitants to each, the population was returned at 528,712. In 1869, the houses were again counted by the police, and returned at 108,199, which would give a population, counted as before, of 540,995.

IMMIGRANT RACES.—The native population consists of Uriyá speaking castes, but many little colonies from other parts of India have settled in the district. There is a considerable sprinkling of Bengalis among the official and landed classes. This element is steadily on the increase. It has already purchased many valuable estates, and monopolized almost all the offices of trust in the administration. Some of the richest Bengali landholders are absentees. They live in Calcutta, and seldom or never visit their estates. But a large number of Bengalis among the official classes and smaller proprietors have gradually settled down in Purí District, and consider themselves naturalized in it. Behar, and the Districts of the North-West Provinces, have sent many families of the Lálá Káyet (Káyasth) caste. They are pleaders in the courts, or petty officials, such as head-constables and clerks. A number of Telingás have come from the south, and settled along the coast, on the shores of the Chilká, and around the mouths of rivers. Almost the whole boat traffic of the District is in their hands. The Kumtis are immigrants from the adjoining District of Ganjám. Most of them reside in Purí Town, and live by wholesale and retail trade. They do not intermarry or eat with the people of the District, although many of them settle permanently in it. The trading classes contain families who have come from Bhojpur, Bandalkhand, and other Districts of north-western India. The Márwárís have also effected settlements. They are the leading cloth merchants, and buy up the surplus crops of the year for exportation. A scattered Marhattá population survives from the time when the country was in the hands of their race. They live chiefly by trade, or enjoy little grants of land, and form a very respectable, although not a numerous class. The Musalmáns, who also represent a once dominant race in Orissa, exhibit no such powers of adapting themselves to their altered circumstances. They are generally poor, proud, and discontented. They contain representatives of Afghán and Pathán families beyond the confines of northern India, but as a rule, they are the descendants of the common soldiery, camp-followers, and low caste Hindu converts. Their total number certainly does not amount to four thousand, and they may be safely put down at less than a half per cent. of the population of the District. In Purí City in 1869, there were 187 Musalmáns, out of a total of 19,825. In the rural parts their proportion is

much smaller. Among them there are only two landholders of any importance,—the Málud family on the Chilká Lake, and the Marichpur house, on the extreme north-east of the District. The Muhammadan religion never made any progress among the native population. There are also two hill tribes, the Kandhs and the Savars, or Sars. They live in leaf huts in the recesses of the forests, and earn a precarious livelihood by bringing jungle products, firewood, and bamboos to the markets on the plains. They cultivate cotton in small quantities, and various kinds of peas and pulse, such as mug, harar, but, and chaná. There are no predatory castes, properly so called, in the district. A gypsy-like class, the Kelás, wander about begging from village to village, singing and dancing for the amusement of the peasantry. They are skilful bird-catchers, and trade on the humanity of the Hindus by offering to release their prey for a trifle. They speak a curious patois of Uriyá and Bengali, mixed with the hill language.

The native population is nominally divided according to the ancient fourfold classification of Bráhmans, Kshattriyas, Vaisyas, and Súdras. In reality, it is divided into the Bráhmans, or priests; the Kshattriyas, or the royal and military class; and the Súdras, who embrace the residue of the population. In order, however, to maintain some show of keeping up the ancient fourfold division, several classes are admitted to hold a position half-way between the Súdras and the Kshattriyas. The most important of these are the Karans, whose position will be subsequently explained. The Bráhmans are divided into two great classes—the Vaidik and the Laukik. The former are said to be immigrants from Bengal, or Kanouj, and date their oldest settlements in Purí from about the twelfth century. The legend runs that they had been settled for some hundreds of years at Jájpur, the ancient capital of Orissa, and that the Rájá Anang Bhím Deo, the rebuilder of the Temple of Jagannáth, founded four hundred and fifty colonies of them in Purí District between 1175 and 1202 A.D. They are called the southern line of Orissa Bráhmans, and will be again referred to in the Statistical Account of Balasor. They are subdivided into two classes,—the Kulins, and the Srotríyas. The former are so highly esteemed, that a Srotríya Bráhman will give a large dower in order to get his daughter married to one of them. But the Kulin who thus intermarries with a Srotríya loses somewhat of his position among his own people. The pure Kulin rarely stoops below the Srotríyas, the class immediately next him, for a wife. The Laukik Bráhmans are supposed to represent the original Aryan settlements in the District. They now work with their hands, and are

excellent husbandmen; while the two upper classes of imported Bráhmans would lose caste by holding a plough. This subject is fully explained in my volume on Orissa.

The local subdivisions of the Bráhmans are innumerable. The most general in Purí District is that which divides the Vaidik Bráhmans into—(1) learned men (*Bhatta-misra* and *Sámanta*); (2) ordinary Vaidik Bráhmans; (3) a class between the two (*Madhyam*). But the best classification I have been able to obtain is one which separates them into three great classes, and eighteen families. The first class is the Kulin Bráhmans, and includes three families,—the *Bachhas*, *Nanda*, and *Gautríya*. These live on lands granted by former Rájás, or by teaching private students, or as spiritual guides, or, more seldom, as temple priests. They are few in number, for the most part in middle circumstances, often very poor, but always greatly esteemed. The second class is the Srotríya, and includes nine families,—the *Bhatta-misra*, *Upádhyáya*, *Misra*, *Rath*, *Otá*, *Tiári*, *Dás*, *Pati*, and *Satpasti*. Of these, some live on lands granted to them by former Rájás, some by teaching private students, some on presents from rich men, some as pilgrim guides, and many as domestic chaplains, spiritual guides, and priests of the temple. They are numerous, some of them rich, but many poor, and are esteemed a little less than the Kulins. The third class is the Laukik Bráhmans, who are subdivided into six families,—the *Pandá*, *Senápati*, *Párhi*, *Bastiá*, *Páni*, and *Sáhu*. These live as husbandmen, holding their own ploughs, as traders, vegetable dealers, rice merchants, and lenders of rice or money on interest to the cultivators, and as pilgrim-guides. They are numerous, some of them rich, but most of them in middle circumstances, like the better class of husbandmen. They are less esteemed than either of the other two classes as Bráhmans, but are generally highly respected as well-born, well-to-do men. The Kshattriyas rank next to the Bráhmans. Strictly speaking, there is not a single Kshattriya of pure descent in Orissa, but, as explained in my general Work, the petty Rájás claim this pedigree; and in the case of the Mahárájá of Khurdhá, the claim is admitted by the Bráhman genealogists. The Rájás confer on their chief Kshattriya servants honorific titles, such as *Báhanpati*, *Pátjosi*, etc. The Kshattriyas are divided into three great classes, with seven subdivisions. The first class is the so-called Kshattriya proper, and includes the three following families,—*Deva*, *Lál*, and *Ráya*. They are Rájás, landed proprietors, or holders of dependent tenures, and some of them lend money and paddy on interest. They are few in number, generally rich, and much esteemed. The second class is the Khan-

dáits, consisting of two subdivisions,—the *Bhanja* and *Harichandan*. They hold dependent tenures or occupy lands, and claim for themselves the rank of Kshattriya, but are generally regarded as Súdras, and, indeed, rank below the Karans in popular estimation. They are few in number, some of them rich, but many poor. The Bhanja family of the Khandáits are great huntsmen, but also cultivate lands, and some of them make high pretensions to pure Kshattriya descent, —pretensions which are not admitted by the Bráhman genealogists. The Khandáits in Purí City, including Kshattriyas of every sort, amounted in 1869 to only 403, among a population of 19,825. The third of the Kshattriya classes is the Rájput, subdivided into *Sinha* and *Chanda*. These are generally employed as Jamádárs, doorkeepers, and messengers, or are petty landholders. They are not a numerous class, and are held in fair estimation.

THE INTERMEDIATE CLASSES between the Kshattriyas and the Súdras have been so fully described in my general Work that a bare statement of their local classification will suffice. It is admitted that no Vaisyas exist; but four classes of Súdras, the Karan, Dás, Sáhu, and Prushti, claim to represent the ancient Vaisyas. Of these the only one deserving of notice is the Karans, the highest of the Súdra castes. They are divided into three classes,—the Patnáik, Dás, and Máhánti. Many of them are landholders, or lend money and rice on interest; but a large proportion are clerks, accountants, and petty officials. They are numerous, generally in good circumstances, and some of them highly esteemed as rich men. The other intermediate classes, the Dás, Sáhu, and Prushti, occupy lands or follow trades. They are few in number, in middle circumstances, and less esteemed.

The Súdras nominally embrace the whole remaining population. In common use the name is generally applied to the husbandmen who cultivate holdings, as opposed to the shopkeepers and the landless low castes who go out as day-labourers. The following table shows the principal fifty-seven Súdra castes in Purí District, arranged, as far as possible, in their order of respectability. It is difficult to give each its proper place, but the classification is substantially correct in this respect. I give the spelling of the castes according to the local orthography, and the subdivisions of castes according to the local classifications. No two pandits have ever given me the same classification even of so well studied a caste as the Bráhmans; and when we come to classifications of the lower orders, the differences are endless. In each case I have adopted the one which, after careful inquiry, seemed best.

CLASSIFICATION OF SUDRAS IN PURI DISTRICT.

Castes.	Occupations.	Numbers.	Whether rich or poor.	Whether esteemed or despised.
Pánikendu.	Village accountants, called Bhui.	Few.	Generally poor.	Little esteemed.
Sundará.	Pilgrim hunters.	do.	Middle circumstances.	do.
Daitá.	do.	do.	do.	do.
Páik.	Till lands, and serve as peons.	Numerous.	Generally poor.	do.
Patrá.	Cloth dealers.	do.	Some rich and some poor.	do.
Guriá.	Makers and sellers of sweetmeats.	Few.	do.	do.
Putulibaniá.	Petty spice sellers.	do.	Poor.	Despised.
Orh Khandáits.	Till lands, and serve as peons.	Numerous.	Generally poor.	do.
Chásá.	Till lands.	do.	do.	do.
Muduli.	Pilgrim hunters.	Few.	Some rich and some poor.	do.
Gaur.	Milkmen, herdsmen, and palankeen-bearers.	Numerous.	Generally poor.	do.
Barhái.	Carpenters.	do.	do.	do.
Kamár.	Blacksmiths.	do.	do.	do.
Támli.	Betel shopkeepers.	do.	do.	do.
Bhandári.	Barbers and domestic servants.	do.	do.	do.
Chitrakar.	Painters.	Few.	do.	do.
Dásiputra.	Domestic servants, peons, etc.	Few.	do.	do.
Máli.	Gardeners.	Numerous.	Poor.	do.
Pathuriá.	Stone masons.	Few.	Generally poor.	do.
Kharará.	Workers in brass.	Numerous.	Some rich and some poor.	do.
Thatári.	do.	do.	do.	do.
Kansári.	do.	do.	do.	do.
Sankhári.	Makers of ornaments from shells.	Few.	Poor.	do.
Rasrá.	Lead and tin workers.	do.	do.	do.
Sunarí Bania.	Goldsmiths.	Numerous.	Rich.	do.
Ranganí.	Weavers.	do.	Generally poor.	do.
Tanti.	do.	do.	do.	do.
Jyautíshik.	Astrologers.	Few.	Poor.	do.
Khitivansa.	Village-school teachers.	do.	do.	do.
Chunará.	Lime dealers.	do.	do.	do.
Káchrá.	Makers of glass ornaments.	do.	do.	do.
Jogí.	Beggars.	do.	Very poor.	do.
Bhát.	do.	Few.	do.	do.
Tulábhiná.	Cotton cleaners.	Numerous.	Poor.	do.
Thuriá.	Petty traders.	do.	Generally poor.	do.
Golá.	do.	do.	Some rich and some poor.	do.
Kumbhár.	Potters.	Few.	Generally poor.	do.
Telí.	Oil pressers.	Numerous.	Some rich and some poor.	do.
Kapásiá.	Tobacco-leaf sellers.	Few.	Poor.	do.
Keut.	Fishermen.	Numerous.	Generally poor.	do.

Castes.	Occupations.	Numbers.	Whether rich or poor.	Whether esteemed or despised.
Málikatá.	Makers of wooden beads.	Few.	Very poor.	Despised.
Khatuá.	Fishermen.	do.	Generally poor.	Much despised.
Sundi (Suri).	Wine sellers.	do.	In middle circumstances.	do.
Sial.	do.	do.	Generally poor.	do.
Dhobá.	Washermen.	Numerous.	Poor.	do.
Tilakmátiá.	Sellers of a description of mud called Tilak.	Few.	do.	do.
Báuri.	Day labourers.	Numerous.	do.	do.
Chamár.	Sellers of palm leaves.	Few.	do.	do.
Gokhá.	Fishermen.	do.	do.	do.
Dom.	Makers of bamboo mats.	do.	do.	do.
Mochi.	Shoemakers.	do.	do.	do.
Kandrá.	Village chowkidars and fishermen.	Numerous.	do.	do.
Pán.	Drummers.	Few.	do.	do.
Hári.	Sweepers.	do.	do.	do.
Kelá.	Beggars.	do.	Very poor.	do.
Charháimár.	Fowlers.	do.	do.	do.
Sabákhiá.	Beggars.	do.	do.	do.

Religious Division of the People.—The Hindus form more than ninety-nine per cent. of the entire population. Their religion has been very fully discussed in chapters iii. iv. and v. of the general volume. Besides a sprinkling of Musalmáns scattered over the District, there is a flourishing colony of native Christians at Pippli, under the care of the Baptist Mission. A Bráhma-Samáj was established by a Bengali Bráhman, who held the post of lower subordinate Civil Judge. The new sect made but little progress in this focus of Hindu orthodoxy, and ceased to exist on the death of its local founder three years ago.

Distribution of the People into Town and Country.—Purí is the only town in the District. It lies on the coast, in lat. 19° 48′ 17″ N., long. 85° 51′ 39″ E., and is separated from the sea by sandy ridges. It covered 1871 acres in 1869, including the whole Kshetra, or sacred precincts of the town. In 1825, according to Stirling, it contained 5741 houses. In 1841 the houses numbered 6620, containing 23,766 souls. In 1868 the number was returned at 6363. In 1869 a very careful enumeration showed that the number had fallen to 5789, with a population of 19,875. The decrease is due to the famine of 1866–67, which did not immediately make its effects visible on the total number of houses. It should be noted, however, that the census of 1869 was confined to the strictly urban population. All the evi-

dence that I have collected, and it embraces the results of seven separate attempts at enumeration, tends to show that the average resident population of Purí and its suburbs during the half-century preceding 1866, has been from 23,000 to 25,000 souls, and I have adopted the latter number in the general Account of Orissa. The Collector estimates the depopulation owing to the famine at thirty-four per cent., and there seems every reason to believe that that calamity reduced the number of inhabited houses by seventeen per cent. During the great festivals of Jagannáth, this number is swollen sometimes by as many as 100,000 pilgrims. It is a city of lodging-houses, and is destitute alike of manufacture or commerce on any considerable scale. The streets are mean and narrow, with the exception of the principal avenue, which leads from the temple to the country-house of Jagannáth. The houses consist of wattle covered with clay, raised on platforms of hard mud, about four feet high, and many of them gaily painted with the Hindu gods, or with scenes from the Indian epics. The intervening sand-hills between the town and the beach intercept the drainage, and aggravate the diseases to which the over-crowding of the pilgrims gives rise. For remarks on its sanitary state, see chapter IV. of my Orissa. The Government offices lie upon the beach, with the sandy ridge between them and the town. The site is salubrious, but the dwellings of the English residents barely number six thatched cottages, much out of repair. The monsoon blows so fresh and cool from the sea, that in former days the officials from Cattack used regularly to come to Purí for the hot weather. During the rains it is less healthy. For an account of its festivals and religious places, see chapters III. and IV. of the work above referred to.

THE PORT of Purí is nothing but an undefended roadstead. It is open for import and export trade from the middle of September to the middle of March. During the other six months of the year the surf does not allow of ships being laden or unladen. The vessels that frequent it consist chiefly of country brigs, and occasionally a barque with an English master. They lie about half-a-mile from the shore in good weather. The trade consists almost entirely of shipments of rice to the Madras coast, and occasionally to the Mauritius. The statistics which I have obtained from the Harbour Office are so obviously imperfect as to render it useless to give them at length. In 1864–65 I find that twenty-nine ships entered the harbour, with a total tonnage of 3865 tons, the largest ship being given at 1028 tons. The value of the commodities exported in that year was £10,788; of the imports £1824. In 1866–67, the famine year, the total tonnage was 12,719 tons, the largest ship 1140 tons, the value of the rice imported being £114,811,

and the exports *nil.* In 1868–69 the total tonnage was 4140 tons, the number of ships that unloaded ten, the value of exports £8352, and imports £3937. During the first nine months of 1869–70 the total tonnage was 4946 tons, the number of ships that entered the harbour fifteen, the value of exports £6695, and imports £1375.

Horsburgh's Sailing Directions give the following instructions for making Purí Roadstead :—'The Jagannáth pagodas are three large circular buildings surrounded by several smaller ones. They are of conical form. The westernmost pagoda is the largest, and the easternmost the smallest of the three. They are nearly all in one bearing, W. by N. When brought to bear N.W., they begin to appear separated. When N.N.W. they are perceived to be distinct buildings. Lat. 19° 48′ 21″ N., long. 85° 54′ E.' Mr. Raper gives lat. 19° 50′ N., long. 85° 56′ E. The latitude and longitude as corrected by the Surveyor-General of India are, lat. 19° 48′ 17″ N., long. 85° 51′ 39″ E.

The only other port in Purí District is Máchhgáon, near the mouth of the Deví River, on the borders of Cattack. A considerable export rice trade is done here, but the silting up of the channel renders the approach perilous to sea-going ships, and involves heavy expenses for lading and unlading by means of cargo-boats. The mouth of the Chilká Lake was once an excellent harbour, and would still be so but for this constant silting up. It is at present wholly impracticable. Besides Purí, the only other towns in the District requiring mention are Pippli on the Cattack road, twenty-five miles from Purí; and Bhuvaneswar. The latter is a place of pilgrimage, and is sufficiently described in chapter v. of my general Account. Both are seats of a considerable trade in rice and cloth. Pippli has a flourishing society of native Christians.

Rural Population.—With the above exceptions the whole population is rural; Purí being a purely agricultural District without a single municipality. The people are poor, and appear even poorer than they are. They wear inferior clothes to men of the same class in other Districts. The well-to-do settlers from the south are distinguished by their earrings and necklaces of gold. A respectable shopkeeper's house is built of wattle or mud. The front verandah is of brick, and the roof of thatch, firmly fixed on a good bamboo or wooden frame. The dwelling of a prosperous merchant or landholder, worth about £100 a year, generally consists of a series of houses built round two courts, which lead one into the other, with the street in front of the outer court, and a garden behind the inner one. The outer court is lined with the chambers of the male members of the family, and the inner court with the women's apartments, the family storehouses, and the cook-room. The furniture of such a house would consist of a few low bedsteads, a press or two,

some wooden stools, a few broken chairs, and perhaps a single striped cotton carpet for the reception-room. The dwellings of the common people consist of sheds or thatched huts built round a single court. The outer apartments are used by the males and for the cattle. The inner are devoted to the females, to the cook-room, and the storehouse. The food of a well-to-do shopkeeper comprises the following articles,—Rice, split-peas, vegetables, fish, milk, or clarified butter, curds, and occasionally goat's flesh. A husbandman in good circumstances, and able to spend sixteen shillings a month on a family of six persons, would consume the following food per diem,—Ten pounds of rice, fourpence; vegetables or split-peas and fish, three-farthings; and oil and spice, three-farthings.

There are very few rich families in the District. In 1870 the income tax returns estimated the total incomes of the District, above £50 per annum, at £106,500 sterling. The income of the richest landholder was estimated at £8000 a year, and the fourteen largest incomes amounted to £37,154, or an average of £2654 each.

Agricultural.—No well tested statistics have been obtained, but the following remarks are taken from a number of returns which have from time to time been officially submitted to, and accepted by, Government. Purí is strictly a rice-growing district. Of rice crops, the following are the most important,—(1.) The Biáli, which is sown on high but moist land, in June or July, and reaped in October or November. Its principal varieties are the Sáthiká, the Kuliá, and the Aswíná. (2.) The Sárad, which is sown on middling high land in July, and is reaped in December. A hundred varieties are included under the generic name of Sárad. Of these, the ten following are the most important,—Khaiará, Kalásur, Bánkoi, Matará, Rangiasina, Nripatibhog, Gopálbhog, Básubati, Bandiri, and Narsinhbhog. (3.) The Dálua rice, sown on low wet lands in November or December, and reaped in April. Its most important varieties are the Piá and Kasundá.

The Sárad, or winter rice crop, is generally transplanted by the more diligent husbandmen; and by this process a much larger return is obtained. If not transplanted, the following are the operations required for the winter crop:—(1) Ploughing, March or April; (2) sowing, May or June; (3) weeding, after first rain-fall; (4) harrowing and ploughing, July or August; (5) second weeding, August; (6) laying (arranging the crop for convenience of cutting), December; (7) reaping, December or January; (8) threshing, January or February; (9) scalding (a little water is poured upon the paddy, which is then placed over a fire until the water is evaporated, for the purpose of loosening the husks); (10) cleaning (husking). Unhusked rice is

called *dhán;* husked rice, *chául;* if broken in husking, *khud-chául;* boiled rice, *bhát;* if broken, *jáu;* boiled rice kept in water till it is cold, *pakhál;* rice liquor, *toráni;* besides sweetmeats, parched rice, miscellaneous preparations such as *khai, liá, ukhurá, churá, bhajáchurá, nurumba, chháchi ukhurá, murhi.* See Account of Balasor.

The price of rice varies greatly. An ordinary rate for unhusked rice is a rupee for two hundred and ten pounds, or nine pounds for a penny. On the fields it is sold at cheaper rates to the grain merchants. Of the coarsest sort of husked rice, eighty-four pounds may be had for a rupee, or at the rate of a fraction over a farthing a pound. In February 1870, the best cleaned rice sold in Purí market at sixty-six pounds for the rupee; the coarsest at eighty-three. No improvements are known to have taken place in rice cultivation in the memory of man; nor have any new varieties, adapted either for the deeper marshes or the drier upland, been introduced.

Of the pulses, the most important are the following :—*Mug* (Phaseolus Mungo,) including three varieties, *Kalá, Sáuli,* and *Dhalá,* sown in January or February, on Sárad rice lands, and gathered in March or April. *Birhi,* including the varieties called *Ná* and *Cháitá.* *Harar,* sown in July, and reaped in December or January. *Chaná* (Cicer arietinum,) sown in December or January, and reaped in February or March. *Kolath* (Dolichus biflorus,) sown in October or November, and reaped in February or March. *Barguri,* sown in December, and reaped in January or February.

Of fibres, the most important are jute, hemp, and flax. The two first are sown in July or August, and cut in September or October. Flax is sown and reaped in the same months, but rather later. Fibre crops are always put down on high land; that used for jute is a poor soil of little value; hemp is generally sown on dry fields close around the homestead.

Of oil seeds, the most important are castor-oil (*gab*), sown on low wet lands or river banks; *rási* (Sesamum orientale), sown on high lands; mustard (*sorish*), and linseed (*tisi,* called in Uriyá *pesu*).

Among miscellaneous crops are tobacco, on low moist lands; cotton, sown early in the cold weather, and reaped in May or June on Sárad rice land; sugar-cane on fine high land, with abundant moisture, or with capabilities of irrigation; turmeric (*haldí*); *báigun* (solanum melongena), on homestead land; potatoes, red pepper, and *pán.*

The standard LAND MEASURE of the District is the *mán,* as nearly as possible equal to an English acre, being twenty rods square, each rod measuring ten feet five inches, and a fraction called a *jab.* A *jab*

is either a barleycorn, or the mark inside the last joint of the thumb. There are various smaller local *máns* in different parts of the district.

Rents vary greatly throughout Purí. The highest rates for rice land scarcely anywhere exceed nine shillings and sixpence an acre. The average of twenty-three Fiscal Divisions shows that the good qualities of winter rice land yield a fraction less than six shillings per acre. The ordinary calculation is, that rice land should pay two shillings per *bharan*. Four *bharans* is a good yield from an acre of first-class land. Two *bharans* an acre is considered poor. The *bharan* consists of eighty baskets (*gaunis*) of grain; but, unfortunately, the baskets vary in size. Those used for weighing unhusked paddy contain five Cattack seers, or between 13 and 14 lbs. avoirdupois. A *bharan* for paddy, therefore, contains ten Cattack maunds, or about 9 cwt. The smaller basket contains only 3½ Cattack seers, and is used for weighing husked rice. The yield per acre in Purí District is therefore from about 16 to 36 cwts. per acre of unhusked paddy, and from 8 to 16 cwts. of husked rice. The average from fair land may be put down at 10 cwt.

The following six descriptions of land will illustrate rents in Purí District:—(1.) Homestead land pays a peculiar rent for frontage (*chanda*); in some villages as high as a shilling for nine feet of frontage, but, with a few exceptions, seldom exceeding nine shillings an acre, and averaging about five. (2.) Rich land, yearly covered with river deposit, from six to ten shillings an acre. (3.) Two-crop land (one of the crops being winter Sárad rice), from six to eight shillings. (4.) Common one-crop winter rice land, from three to five shillings. (5.) Autumn rice land (*Biáli*), from six to eight shillings. (6.) Spring rice land (*Dálua*), from three to five shillings per acre. The following are the rates of rent in each of the Fiscal Divisions of Purí, for the best qualities of two-crop, and of winter rice land. The rate for two-crop land stands first in each case. In Atháis, the rate is six shillings and threepence for two-crop (dofasali) land, and six shillings for winter rice land (Sárad). In Astarang, 7s. 6d. and 7s. 3d. respectively; in Antrodh, 6s. and 5s. 7½d.; in Bánchás, 9s. and 2s. 9d.; in Chaubiskud, 3s. and 3s. 1½d.; in Domárkhand, 6s. 3d. and 9s. 4½d.; in Kalijori, 4s. 11½d. and 3s. 3¾d.; in Kanman, 5s. and 6s. 3d.; in Kurúlo, 7s. and 6s. 10½d.; in Kotdes, 8s. 2d. and 7s. 3¾d.; in Kot Ráháng, 6s. and 5s. 6d; in Kodhár, 7s. 6d. and 7s. 6d.; Khurdhá, 2s. 4d., 3s. 4d., and 2s.; Lembái, 1s. 3d. and 1s. 3d.; Mátkadpatná, 6s. and 7s.; in Mahal-masrud, 5s. 6d. and 4s. 6d.; in Oldhár, 5s. 4½d. and 6s. 3d.; in Paschimduái, 8s. 3d. and 6s. 3d.; Púrbduái, 6s. 6d. and 6s.; Ráháng, 7s. and 6s. 3d.; Sayyidábád, 5s. 4½d. and 3s. 1½d.; Sirái, 3s. 1½d. and 2s.; Sultánnagar, 6s. 3d. and 3s. 9d.

LAND is not yet so scarce in Purí as to cause an excessive subdivision of holdings. A husbandman who holds less than five acres is held to be ill off. Ten acres make him a prosperous peasant. Thirty acres are a large holding, and eighty acres an unusually large one. A husbandman with ten acres is supposed to be as well off as a small retail shopkeeper, or a servant earning about sixteen shillings a month. The husbandman dresses worse, but he has more to eat. The cultivators, as a class, are deep in debt to the landholders, who make advances of money and rice to them. A large proportion of them hold at fixed rates, and represent the *thání rayats* of the settlement papers. Such husbandmen hold their land under leases, *kálipattás*, granted by the Settlement Officers in 1836–37, and remaining in force until the next settlement in 1897. The number returned as holding at fixed rates is 119,168. This is probably an exaggeration, as it would represent about 100,000 houses, and the whole number of dwellings in Purí District is returned at 108,199. But it may, without error, be taken as evidence to show that the larger proportion of husbandmen in the District hold at fixed rates. All other husbandmen are tenants at will, except in rare instances where leases have been given. Act x. of 1859, therefore, scarcely applies to Purí District. Rent suits of any sort are rare, and the twelve years' occupancy right is unknown. In 1861-62 there were 464 original suits under Act x. and laws based upon it; in 1862-63, 487; in 1866–67, 545; in 1868–69, 977. In 1866–67 there were also 356 miscellaneous applications; and in 1868–69, 630. It is simply a Rent Law in Purí.

THE DOMESTIC ANIMALS OF THE DISTRICT are,—cows, oxen, and buffaloes, kept by Gaurs and cultivators; sheep and goats, kept by castes below the Gaurs; pigs, kept by the low-caste Ghusuriás; pigeons, kept, but not eaten, by the respectable classes; fowls and ducks, kept only by Musalmáns and very low castes. A few under-sized ponies are kept by the richer classes for riding, but are never used for ploughing or draught. The following prices may be received as an approximation to the current rates:—A cow giving four pounds of milk daily fetches about £1, 5s., but in some parts may be got as low as 16s.; a pair of good plough bullocks, £3 sterling; a good cow buffalo, giving nine pounds of milk, £2; a pair of draught buffaloes, £4; a score of sheep, £2; goats about the same price; a score of full-grown pigs, £10. Ten acres are called a plough of land, but practically, six or seven acres are as much as a good pair of bullocks can manage. The implements required for ten acres are the following:—One plough, value 2s.; two mattocks (*koris*), 5s.; one spade (*kánk*), 2s.; one axe (*kurálí*), 1s. 6d.; three choppers for cutting wood (*káturi* and *dá*), 1s. 3d.; a clod

b

breaker (*mai*), 1s.; a harrow (*bidá*), 6d.; total, 13s. 3d., which, with £3 for the oxen, make £3, 13s. 3d. The husbandman would also have to borrow an occasional pair of oxen for a holding of this size. Few hired labourers are employed, but the Báuris, Savars, and Kandhs are practically labouring classes. The Kandhs cultivate lands in the hills, but only appear in the plains as hired labourers. Agricultural wages are generally paid in unhusked rice, at the rate of twelve pounds a day for a man, and six for a woman. Children tend cattle at a fraction over a farthing a day. The regular day-labourers of a prosperous husbandman are also allowed a couple of acres on which to grow vegetables or rice during their leisure hours. Money wages are officially returned at the following rate:—Unskilled labourers in Purí Town, fourpence a day; in the rural parts, twopence half-penny; their wages twelve years ago were about twopence half-penny in the town, and three half-pence in the country. Smiths and carpenters used to get threepence three-farthings in the town, and twopence in the country twelve years ago; they now get sixpence a day in the town, and threepence three-farthings in the country. Bricklayers who used to get fourpence half-penny in the town twelve years ago, now get sevenpence half-penny. A description of the tenures and of the landholding classes will be found in the general Account of Orissa.

MANURE consisting chiefly of cow-dung, eked out by the black mud from the bottom of tanks, and river deposits, is used to a large extent. It is called *khát*, from the Sanskrit *khát*, past participle of *khan*, to dig, meaning either pit refuse or what is dug in. It is measured by bullock-cart loads. Three loads are a fair allowance for an acre, and are valued from sixpence to a shilling per load. For very high cultivation, a husbandman calculates nine shillings for rent, and about two shillings for manure. The refuse of oil seeds and sugar-cane is also used.

IRRIGATION is less sparingly employed. Wells, tanks, rivers, and shallow pools supply the water. The fluid is raised by means of a mat scoop, swung by two men, or by the *tendá* apparatus of unglazed earthen pots fixed to weighted bamboo levers, or by the *jantá* apparatus of a hollowed cocoa-nut trunk, with the large end moved up and down the small arc of a circle by means of a heavily-weighted bamboo lever. Irrigation is seldom used except for the spring rice (*Dálua*) and the February pulse crops. If the water can be raised to the field by means of one throw-up of the mat scoop, irrigation costs about ninepence an acre for rice, and for sugar-cane a little more. Common wells are made by digging a wide deep hole till the water comes, and then piling short, broad earthenware pipes on the top of each other in the centre, and filling in the earth around. A double

tiled well of this sort, thirty feet deep, costs about forty shillings. In the towns and homesteads, the earthenware pipes are sunk from the top, the centre being hollowed out, and the excavators working downwards as the cylinders sink. Sometimes the interior of the wells are built round with solid brick. A double masonry well of this sort, forty-five feet deep, costs about £40.

ROTATION OF CROPS.—Land is nowhere left fallow except for sugar-cane. The following rotation of crops is known, but not very generally practised,—First year, sugar-cane; second year, a coarse grain, manduá (*Eleusine corveana*); third year, brown peas (*Dolichos biflorus*); fourth year, cotton; fifth year, sugar-cane; and so *de novo*. In rice cultivation the same sort of crop is taken year after year off the same land.

NATURAL CALAMITIES.—Locusts seldom do much damage. Only one flight is recorded within the past ten years, namely, in 1862, when one of the peasants asserted in court that he lost seven-eighths of his crop. The general loss to the District was in a much less degree. Black insects (*Kálimakshi*) breed on the wet ground after floods, and occasionally devour the young crops. Other minute insects (*Jhintikás*) attack the young crops when in the milk. Every year square miles of standing crops perish by floods. But drought is the great enemy of the District, and the failure of the rivers is even more dreaded than their overflow. This subject has been very fully discussed in my Orissa. As the District is almost entirely on one level, there is no compensating influence. If the rains hold off till the middle of July, a panic occurs, and rice rises to thirty pounds of the coarsest, and twenty-five of the finer sort for a rupee. The great famine of 1866 has elsewhere been described. Its effect on prices is still keenly felt in the District, but last year, 1869–70, fortunately proved a bumper season.

ADMINISTRATIVE HISTORY.—The District of Purí was annexed, with the rest of Orissa, in 1803. An account of the occupation will be found in my general Account of the Province. On the fall of Cattack Fort, Mr. J. Hunter was deputed to Purí to collect the revenue of that division of the province, and to superintend the temple. From 1818 to 1828 Purí and Khurdhá were under the charge of the Joint Magistrate and Deputy-Collector of Khurdhá, who, after a time, obtained the rank of Collector. In 1828, Orissa was divided into the Northern, Central, and Southern Divisions, the last of which is identical with the present District of Purí. About the same year, the headquarters were removed from Khurdhá to Purí Town. In 1829, the total income of the District was £89,776, and the total civil expenditure £12,357, or one-eighth of the revenue. In 1860–61, the total revenue, deducting transfer accounts, was £126,157, and the expenditure £16,722. In

1870–71, the budget estimate for the revenue is £124,666, and the expenditure £22,843. During the last forty years, therefore, the revenue has increased by one-third, and the cost of Government has nearly doubled. During the past ten years under the Crown the revenue has remained stationary, while the expenditure has increased from £16,722 to £22,843, or 36·06 per cent.

THE LAND TAX amounted to £44,707 in 1829–30; to £45,973 in 1850–51; and to £45,438 in 1870–71. The subdivision of properties has rapidly gone on under our rule. In 1828, there were only 194 separate estates, with 670 proprietors. In 1850, the number had risen to 272 estates, with 910 proprietors or coparceners. In 1870, the separate estates amounted to 425, with 1150 registered proprietors. The effects of this subdivision are visible in the average payments of each proprietor or coparcener. In 1828, the average of the large class of small proprietors who pay below £10 a year of Government rental, was £3, 9s. 6d.; in 1850, it had fallen to £2, 12s. 6d; and in 1870 it was £1, 10s. 6d. In the next class of proprietors, who pay a yearly rental of between £10 and £100, the average payment of each proprietor in 1828 was £14, 4s.; in 1870 it was £10, 8s. In the large estates paying over £100 a year of Government rental, the average payment of each proprietor was £465 in 1828, and £369 in 1870. Taking the landholding body as a whole, each estate paid on an average £230 of Government rental in 1828, and £106 in 1870. Each proprietor or registered coparcener paid on an average £67 in 1828, and only £39 in 1870. The average size of estates has, therefore, diminished by one-half during the last forty years of British rule in Purí.

THE AMOUNT OF PROTECTION given to property and person has greatly increased. In 1828–29 there were only three courts, revenue and judicial, in the District; in 1850 there were seven; in 1862, nine; and in 1869–70, twelve. In 1828–29, there was only one covenanted officer in the District. There are now generally three, namely, (1) a Magistrate and Collector at Purí; (2) a Joint or Assistant-Magistrate and Deputy-Collector at Purí; (3) an Assistant-Magistrate and Deputy-Collector in charge of the subdivision of Khurdhá. In 1868, the regular police stood thus,—Three European officers, on an average salary of £375 a year; 83 native officers, on an average salary of £21, 15s.; and 447 foot police, on an average of £7, 4s. a year; total strength of police, 533. The estimated strength of the regular police to the area of the District, is one man to every 3·09 square miles, or one man to every 997 of the population. The cost of protection is £4, 3s. a square mile, or 3⅞d. per head of the population. In this calculation the police

department estimates the area of the District at 2083 square miles, and the population at 528,712. After recent transfers, the Surveyor-General gives me the present area at 2504 square miles. During the year 1868, the police made 1032 arrests, conducted 794 cases cognizable by the police, and in 539 cases obtained convictions. The total cost of the regular police is £8710, 10s. a year. The 530 native officers and men consist of 438 Uriyás, 64 Bengalis, 18 Telingás, and 10 Marhattás. Besides the regular district police, there is a town police, costing £540 a year, and numbering 83 men of all ranks. There is also a village watch, consisting of 2778 watchmen, who receive an estimated pay in money or lands of £2583 a year, or under £1 per man. This represents a cost of £1, 5s. a square mile of the district, or about 1d. per head of the population. Their average strength is one man to every 0·74 square miles, or to every 190 of the population. Each village watchman has on an average thirty houses under his charge. Including, therefore, the regular force, the town police and rural watch, there are 3393 police of all ranks in Purí District, maintained at a total cost of £11,833 a year. For police purposes, the District is divided into seven stations, with forty-five outposts, including salt outposts.

THE CRIMINAL CLASSES.—There is little crime in the District. The average number in jail, both in Purí and Khurdhá, in 1865, was 95, of whom only six were females, or about one criminal always in jail to every 6000 of the population, and one female to every 100,000. The entire number admitted in 1868 was 755 males and 54 females, or a total of 809. The constant rate of sickness was 3 per cent. of the number in jail, and the death rate was 2·10 per cent. During the ten years, from 1859 to 1868 inclusive, the total number of Musalmán prisoners was only 185; the Bráhmans numbered 802; the writer caste 533; the Chásá, or common agricultural classes, 3206; the low castes of all sorts, such as Páns and Báuris, 1722. During the same period, only two Christians found their way into Purí jail. As regards their actual occupations, there were 849 priests, 656 shopkeepers, 52 weavers, 2606 husbandmen, 1133 labourers, besides a few persons of miscellaneous trades, including 3 pilgrim-hunters and 15 beggars. Strictly speaking, there are no criminal classes in Purí District, that is to say, no classes who live by preying on society. Petty thefts, the result of extreme poverty, often, indeed, of the pangs of hunger, are the most common offence. Murders occur very seldom, and are nearly always traced to some complication about women or land. The Bráhmans supply a large proportion of the criminals. But here, as elsewhere, it is the miserably poor and hungry landless castes who fill the jails.

With regard to the administration of civil justice, Purí forms part of Cattack District. The Civil and Sessions Judge proceeds on circuit from Cattack, and holds his Court at Purí at stated periods of the year.

FISCAL DIVISIONS.—The number of villages or rural communes in Purí District in 1870, is returned at 2962, containing on an average two hundred inhabitants each. The number of Fiscal Divisions (*parganás*) has varied at different times. I have two statements of them, which present considerable discrepancies. The first is furnished by the Collector; the second by the Surveyor-General, and may be taken as the more correct. The first shows the number of estates in each Fiscal Division, the amount of Government land-rent, the area in acres, and the estimated population. The second exhibits each Fiscal Division divided into its cultivated and non-cultivated area. I subjoin both lists, partly for the value of the different subjects they deal with, and partly to illustrate the discrepancies which such lists show in almost every District. Such discrepancies arise from the circumstance, that not only does the total area of a District vary, owing to transfers to other Districts, but the boundaries of the Fiscal Divisions themselves are often badly defined. Sometimes, indeed, a Fiscal Division is so shattered and interspersed with fragments of others, that the surveyors have had to lump them together, while the Collectorate returns continue as before. Such mistakes creep into the different departments of Government, and are aggravated as time goes on. Thus, I have received five different returns of the area of Purí District, varying from 2080 to 2698 square miles. The present area is, as already stated, 2504 square miles.

The following is the Statement of Fiscal Divisions as made up in the Collectorate:—

1.	Andhári, containing	1	Estate.	Jagir.	Area, 7,959 Acres.	Pop.	1,500
2.	Antrodh, ,,	5	,,	Paying £82 Land Revenue.	1,873	,,	19,991
3.	Astarang, ,,	1	,,	151	5,477	,,	1,081
4.	Atháis ,,	13	,,	838	33,605	,,	11,408
5.	Bajrakot, ,,	1	,,	Jagir.	11,838	,,	2,000
6.	Bánchás, ,,	36	,,	813	15,922	,,	13,361
7.	Chaubiskud, ,,	14	,,	2,428	54,658	,,	5,003
8.	Domárkhand,	16	,,	615	15,869	,,	7,680
9.	Kalijori,	4	,,	27	434	,,	4,457
10.	Kanman,	2	,,	185	4,699	,,	1,189
11.	Khurdhá,	1	,,	15,308	595,526	,,	165,390
12.	Kodhár,	3	,,	434	15,852	,,	6,798
13.	Kotdes,	30	,,	8,618	129,998	,,	90,016
14.	Kotráháng,	66	,,	2,883	29,445	,,	30,003

15.	Kurúlo,	containing	8 Estates.	£248 Land Revenue.	9,602 Acres.	Pop. 8,755
16.	Lembái,	,,	7	3,449	58,854	,, 30,035
17.	Málud,	,,	1	Jagir.	10,794	,, 2,000
18.	Mánikpatná,	,,	1		13,563	2,000
19.	Marichpur,	,,	1	332	33,983	8,000
20.	Masrud,	,,	2	64	1,739	840
21.	Mátkadpatná,		4	107	6,367	1,548
22.	Oldhár,	,,	17	523	21,306	7,150
23.	Pánchgarh,	,,	1	1,547	22,135	19,856
24.	Párikud Kila,		1	Jagir.	44,764	5,166
25.	Paschim-duái,		94	1,246	12,378	15,466
26.	Púrb-duái,	,,	43	713	14,340	12,201
27.	Ráháng,	,,	22	3,006	71,559	64,506
28.	Sayyidábád,	,,	18	482	12,248	2,782
29.	Sirái,	,,	9	2,378	43,634	4,741
30.	Sultánnagar,		3	159	3,178	892
31.	Chilká Lake,				220,000	

The Surveyor-General's Return is as follows:—

	Total Area in square miles.	Acres.	Cultivated.	Waste.
1. Andhári,	12·43	7,959	2,810	5,149
2. Antrodh,	53·01	33,926	26,352	7,574
3. Astarang,	8·74	5,594	2,728	2,866
4. Atháis,	52·01	33,289	11,975	21,313
5. Bajrakot,	18·50	11,838	3,520	8,318
6. Bánchás, .	30·20	19,329	14,294	5,034
7. Chaubiskud,	105·46	67,498	20,341	47,157
8. Domárkhand, .	29·33	18,766	12,356	6,410
9. Kanman,	6·58	4,208	2,024	2,183
10. Khurdhá,	929·92	595,150	137,585	457,565
11. Kodhár,	27·19	17,405	11,663	5,741
12. Kotdes,	181·55	116,194	86,020	30,174
13. Kotráháng,	55·83	35,728	17,913	17,815
14. Kurúlo,	20·01	12,805	7,033	5,771
15. Lembái,	89·97	57,580	30,807	26,772
16. Málud, . .	16·86	10,794	2,880	7,914
17. Mánikpatná,	21·19	13,563	3,014	10,549
18. Marichpur,	53·10	33,983	7,040	26,943
19. Mátkadpatná, .	10·80	6,914	2,202	4,712
20. Oldhár, .	41·14	26,330	1,875	24,455
21. Pánchgarh,	42·57	27,312	14,424	12,888
22. Párikud, .	69·94	44,764	18,560	26,204
23. Paschim-duái, .	25·92	16,589	5,612	10,976
24. Púrb-duái,	32·50	20,802	4,283	16,518
25. Ráháng,	149·49	95,678	67,480	28,198
26. Sátpárá,	8·14	5,211	5,000	211
27. Sirái, . .	67·67	43,307	23,355	19,952
28. Chilká Lake,	344·43	220,436		

For a detailed account of the Physical Geography and fluvial characteristics of the separate Fiscal Divisions, see Appendices A to G to Superintendent of Embankments' Report, dated 6th June 1858.

Of the present area of the District, after recent transfers, 964 square miles were under cultivation in 1840, 54 cultivable, but not cultivated, and 1486 incapable of cultivation, total 2504 square miles. The cultivated area is now given at 741,197 acres, or 1158 square miles. This return, with the following classification of lands based upon it, is taken from an official report, but must be accepted rather as a piece of intelligent guess work, than as trustworthy statistics. Of the 741,197 acres under tillage,—243,230 are enjoyed by the landholders as Jágír, and pay no revenue to Government; 462,935 pay rent to Government as actually under crops; and 35,032 lie fallow. There are, therefore, according to this estimate, only 462,935 acres of cultivated land that actually pay rent to Government. As each acre would have to yield nearly a rupee of Government rent to make up the total actual land revenue of the District, I am inclined to think that the total return of tillage (741,197 acres) is below the mark, and that 800,000 acres would be nearer it. No trustworthy information exists as to the acreage under cotton and other crops, but it is believed, that of the 462,935 acres under cultivation, 446,014 are under rice; 5267 under cotton; 6029 under pulses; and 5625 under tobacco, sugar-cane, and miscellaneous crops. The total crop of rice is estimated at about five millions of hundredweights; the cotton at about 21,000 cwts.; and the pulse at about 25,000 cwts. It is estimated that about 60,000 cwts. of rice are annually exported; one-third by sea, and two-thirds by land and the Chilká. The above figures must be received with great caution, but they are the best I have to offer.

THE REVENUE SETTLEMENT, which practically still continues in force, is that of 1837. It was intended to hold good for thirty years only; and in 1866 an agitation took place with a view to extending the Permanent Settlement to Orissa. But the state of exhaustion in which the famine of that year left the province, precluded the possibility of doing so, and would have rendered the minute investigations necessary for a re-settlement, very distressing to the people. During the early part of 1867, much correspondence passed between the local authorities and the Governments of Bengal and of India on the subject. It was decided that the people should be spared all interference in their then reduced circumstances, and the ruling power made up its mind to renew the settlement at the low rates of 1837. The Government of India, in its letter, No. 2405, dated 22d January 1867, proposed to extend the previous settlement for twenty years. But afterwards it

was resolved to grant a thirty years' extension, without any enhancement of the rents (Act X. of 1867). The settlement of 1837 expired in September 1867, and the current one will, therefore, run to 1897. On the most moderate computation, the existing land revenue might have been raised by five per cent., or in round numbers, £2500 a year. Irrespective of interest, therefore, the famine of 1866 has cost £75,000, under the single item of non-enhancement of the rates, in Purí District alone.

MEDICAL ASPECTS OF PURI.—Average rainfall, 66·25; average temperature, 87·3. The prevailing diseases are Malarial fever, in all its varieties; Elephantiasis, chiefly of the lower extremities and scrotum; Dysentery and Cholera; Fevers, quotidian, tertian, and quartan, are common throughout the whole District; nor, indeed, can they be otherwise, when the mode of life among the people is considered. Many villages stand in the midst of marshes. Square miles of land lie under water during the rains; and the floods sometimes swamp the whole District. The drinking water, especially in the hot season, is charged with organic impurities, and holds in suspension a large quantity of insoluble sediment. The bathing water is generally a fœtid tank. The meagre diet of the people does not enable them to resist the malaria which they breathe. Fatty food is wholly wanting; oil is very sparingly used; and the Civil Surgeon reports that salt is not consumed in sufficient quantities for the requirements of the human frame. Enlargements of the spleen and malarial cachexia follow such fevers, and the withered body, puffy face, and inability to support any strain, physical or mental, bear witness to the generally feeble tone of the inhabitants, and their powerlessness to throw off complaints. Elephantiasis is the most conspicuous endemic. It afflicts men and women alike, and does not spare even children. It is most prevalent in the town of Purí and its environs. In many cases it is associated with a continued fever of three days' duration, attended with inflammation of the lymphatics, and the lymphatic glands of the affected extremity. So far as the Civil Surgeon has observed, there is no relation between the fever associated with Elephantiasis and ordinary intermittent fever. The local affection often precedes the constitutional disturbance, and the recurrence of the fever is irregular, sometimes once, and sometimes twice a month. After each attack, the extremity enlarges by gradual increments. Dysentery chiefly occurs at the beginning and at the end of the rains. It arises from exposure, from insufficient clothing, from bad food, from impure water, and from similar causes, operating on subjects predisposed by malarial dyscrasia. Cholera may be added to the list of endemics, as there is scarcely a month in which it is

wholly wanting. Purí City is a hot-bed of the disease. It only requires the annually recurring conditions of over-crowding, of filth, of great heat, of dampness, and sudden atmospheric changes, to turn the pilgrim city into a pest-house. But cholera is best considered as an epidemic occurring in February or March, and again in June or July, at the Dol-Játrá and the Car Festival. Sometimes it attacks all classes; but the destitute, ill-fed, ill-housed pilgrims generally supply the great proportion of the victims. The richer inhabitants suffer little. Its chief force is concentrated on the town, from whence, however, it often spreads into the District, especially in the villages along the pilgrim high road. It attains its maximum intensity at the Car Festival rather than at the Dol-Játrá. Last season the mortality from cholera was ascertained to be 1089, from January to July. The reported cases, however, probably represent but a small proportion of the actual deaths. The only other epidemic of importance is the small-pox, which generally makes its appearance in January, February, or March. It has not, however, committed any serious ravages since the famine year, 1866-67. The natives persist in resorting to inoculation, and the epidemic has several times been traced to the practice. They look on vaccination with suspicion, and sparingly adopt it. Until compulsory vaccination is introduced, or at any rate, until inoculation is rendered a punishable offençe, there is no hope of small-pox being stamped out in the District. Measles and a modified form of small-pox prevailed in Purí City in November and December 1868, but occasioned very little mortality. Epidemic fevers are unknown in the District. Epizootics, in two forms, occurred in 1867-68. Guti, or cattle small-pox, appears in its most formidable shape. Phátuá, or hoof disease, is equally infectious, but less fatal. The first kills in a few days, and from 50 to 80 per cent. of the cattle attacked die. The rate of mortality sometimes rises to 90 per cent. Phátuá is simply a chronic foot-rot, and wears out the animal by pain and exhaustion. It is often communicated to the mouth by licking, rendering mastication impossible. For further particulars, *vide* Stat. Account of Balasor.

Fairs and Religious Gatherings are the great predisposing causes of epidemics. This subject has been fully treated of in my general Account of Orissa. The Car Festival annually slays its thousands. It occurs at the most unfavourable and inclement season of the year. Before its close the rains are pretty well advanced, the roads are cut up, the rivers are full, the roadside lodging-houses are close and steamy, and often the sole shelter for the travellers is under trees dripping with rain, and charged with malarial influences. The

Dol-Játrá in the spring time does less damage. The Panchak Festival in October or November often ends in a sharp epidemic of cholera. The whole religious character of the District centres in Purí City, and the local rural gatherings are unimportant. So far as I can learn, epidemics have never been traced to them.

INDIGENOUS MEDICINES.—The following are the principal vegetable drugs in the district:—Pitá-kro, the bark of Wrightia Antidysenterica; Indrajab, seed of ditto; Bel, fruit of Œgle Marmelos; Sunt, the root of the Zingiberis officinalis; Pánmauri, Aniseed; Sof, Anethum; Muthá, the tuber of the Cyperus pertenuis; Benácher, the root of the Andropagan Muriaticum; Dhaniá, Coriandrum Sativum; Methi, Fenugreek; Amblá, Emblica officinalis; Bans-lochan, Tabasheer; Khayer, Catechu; Dhuná, resin; Kuchlá, Nux Vomica; Chindi-nai, in Bengali Ananta-múl, Hemidesmus; Dálim, pomegranate. Mineral drugs are not so frequently used as vegetables. Rasakarpur, the mixed oxide, and Shingraf, the red oxide of Mercury, are given in pills, and occasionally smoked in a tobacco-pipe. Litharge is made up into an ointment. Gold is a great favourite in the pharmacopœia of the Uriyá practitioners as a stimulant, mixed with musk. The native system of treatment consists chiefly in administering specifics against bile, heat, and excessive humours.

SUBDIVISION OF KHURDHA.—For administrative purposes the north-west part of Purí is placed under a separate officer, subject to the Collector of the District. The subdivision is bounded on the south-east by the Chilká Lake; on the east by the Dayá River, which, roughly speaking, separates it from Purí District; on the north-east and north by the Cattack District; on the north-west, west, and south-west by the Tributary States of Bánki, Khandpárá, Ranpur, South Ghumsar, Athgarh, and Ganjám District. Khurdhá was the hereditary seat of the last of the Orissa dynasties, and the royal house retained much of its independence until its rebellion against the British Government in 1817. In 1818 Khurdhá became the headquarters of the English District, and continued so till about 1828. It is now (1870) under an Assistant-Magistrate. In 1836 it is described by Mr. Wilkinson as extending from within six miles of Cattack to the pass of Chhatra-garh, seventy-six miles in length, by from five to twenty in breadth. The Police return the total number of houses at 45,827; which, allowing an average of five persons to each, would give a population of 229,135.

Along the Dayá River the country is flat and alluvial. But with this exception Khurdhá is covered with long ranges rising to over 1000 feet high. They run an irregular course from north-east to south-west,

breaking up the country into small valleys intersected by petty streams, and well cultivated. The villages are situated on the higher lands, and belted round by picturesque groves of trees. The hills have mostly been stripped of their wood, and bear nothing but a mean scrub. But towards the south, where the ranges run down to the Chilká, they are covered with bamboo and dense jungle. The scenery in some parts where the hills rise, range after range, towards Central India is very beautiful.

The most conspicuous mountains in Khurdhá are the Solári, in Bánpur; the Bhelari, on the south-west boundary; Baithá and Baruní, one mile to the south-west of Khurdhá Town. None of them exceed 1800 feet. They are inaccessible to wheeled conveyances, and can with difficulty be ascended by cattle. Solári is a group of peaks rising one above another from the flat land near the Chilká. The other three are saddle-backed mountains rising into bare, and often inaccessible, precipices. The natural caves in the Baruní and Solári Hills have been hermitages and places of pilgrimages from time immemorial. That on the Baruní has a few inscriptions. A splendid tank, the work of pre-historic builders, stands on the Solári Hill. Khurdhá has no navigable rivers, and all are fordable except on occasions of flood. Fifty-five cases of drowning were brought to the notice of the police in 1869.

There are no towns in Khurdhá exclusively occupied by fishermen, though all round the shores of the Chilká fishing forms the principal occupation, and it is estimated that on the west side of the lake some 5000 or 6000 persons live by it. A natural watershed crosses Khurdhá, and separates the Chilká from the Mahánadí Valley. In the western part of the subdivision the waters run into the Mahánadí, by means of its tributary, the Kusumí. The north of the subdivision is drained by the Rann and other small streams. In the east and south the waters find their way into the Chilká Lake.

Good building materials abound. A very cellular laterite is easy to quarry, and hardens by exposure. A coarse kind of freestone, veined with spar, is also common; and in many places lime under-lies the laterite. At Garh Atir there is a hot-spring, the waters of which are impregnated with sulphur, in the middle of a highly culti-vated valley, where a large fair is held in January, lasting for eight or ten days, and attended by merchants from all parts of the country. There is a small picturesque pass at Sinheswar, on the Ganjám road, and another at Kurárhmal, about five miles south of the subdivisional town; but the destruction of the bamboos and large trees has greatly spoilt their beauty. The jungle still covers a large part of Khurdhá. Here and there small patches are brought under cultivation, and are

assessed at from 7d. to 9d. an acre. With this exception, no revenue is derived from the forests. The timber and bamboos are wastefully destroyed. Trees, such as *Sál*, *Piásál*, and *Sisu*, would grow to a large size, and prove of great value, were they not ignorantly cut down.

The wild animals and game found in the subdivision are the same as those in Purí District. The deaths from snake bites reported during the year 1869-70 amounted to thirty-three; from wild beasts, seven. Quantities of wild beast skins are collected from the Khurdhá hunters by traders belonging to other districts. There is a large flesh-eating population, which mainly depends upon its guns for food.

For administrative purposes Khurdhá is divided into three police stations, namely,—(1) Khurdhá, comprising the station itself and eight outposts. It contains 641 villages and 33,374 houses. (2) Tángi, comprising the station and two outposts. It contains 5511 houses. (3) Bánpur, comprising the station and five outposts. It contains 6942 houses.

Fiscally, the subdivision consists of two great Government estates (*Khás Mahals*), namely, Khurdhá and Pánchgarh. The former, Khurdhá, comprises the following Fiscal Divisions, called *Kilas*, or forts:—(1) Khurdhá; (2) Dándimál; (3) Tapang; (4) Kuspálá; (5) Kuhuri; (6) Haldiá; (7) Balabhadrapur; (8) Mánikgorá; (9) Bánpur; and (10) Mughabhandi. The first or Das-Sálá settlement for this estate was made in 1819 for £5240. The present assessment is for £17,760, and is current till 1880. The revenue of the Pánchgarh estate was settled at £1546 in 1837, and this assessment is still current. In both these estates the settlement is made direct with the cultivators. The following towns in the subdivisions are estimated to contain over 2000 inhabitants,—Bánpur, estimated at about 5000; Darutheng, about 3600; Bolgarh, about 2500; and Mánikgorá, about 2000.

The number of rent suits under Act x. of 1859 was 236 in 1866-67, and 389 in 1868-69. The number of miscellaneous applications in the same years were 257 and 431 respectively.

APPENDIX II.

STATISTICAL ACCOUNT OF THE DISTRICT OF BALASOR.

BALASOR, a corrupted form of Báleswara, the Young Lord (Krishna), is bounded on the north by the District of Midnapur; on the south by the Baitaraní River; on the west by the Tributary States of Keunjhar, Nílgiri, and Morbhanj; and on the east by the Bay of Bengal, which here curves up from the mouth of the Bráhmaní River, to the Subanrekhá. It lies in the 20th and 21st degrees of north latitude, and in the 86th and 87th degrees of east longitude. Its area, after recent transfers, is 2041 square miles, and its population 485,113 souls.

THE JURISDICTION of Balasor has undergone many changes. Captain Morgan, the first British officer of the District in 1804, exercised authority between the sea and the hill states, as at present; but all the Fiscal Divisions beyond Nángaleswar and Sátmalang, to the north, were under Midnapur. To the south his limits were ill-defined, and it is uncertain whether Bhadrakh was within his jurisdiction. At that time the country was so unsettled, that large discretion had to be allowed to the officers. For example, the Kaniká Rájá frequently gave trouble, and was sometimes coerced from the Cattack District, and sometimes from Balasor, as was found most convenient. Mr. R. Ker was appointed, with the title of Collector, in 1804, and exercised jurisdiction as far south as the Bráhmaní River. From the 18th July 1805 to the 3d August 1821, Balasor was managed from Cattack, and had no separate revenue officer. From 1821 to 1827 a joint magistrate administered the district as the Deputy of the Collector of Cattack. In 1827, Balasor was erected into an independent collectorate under Mr. H. Ricketts; and in 1828, Jájpur and Bhadrakh were attached to it. Jájpur was subsequently transferred to Cattack. On the north, a perplexing series of transfers and re-transfers of fiscal divisions has gone on between Balasor and Midnapur, particularly in 1837, 1858, 1865,

and 1868. Some have been transferred backwards and forwards as many as three times; and the Collector reports that 'constant shifting of jurisdiction has made these fiscal divisions very lawless and difficult to manage.'

General Description of District.—Balasor District is simply a strip of alluvial land between the hills and the sea, varying from about nine to thirty-four miles in breadth. Generally speaking, the hill country rises from the western boundary line. The district naturally divides itself into three well-defined tracts: (1) the Salt Tract along the coast; (2) the Arable Tract, or rice country; and (3) the Submontane Tract, or jungle lands. The Salt Tract runs the whole way down the coast, and forms a desolate strip a few miles broad. Towards the beach it rises into sandy ridges, from fifty to eighty feet high, sloping inland, and covered with a vegetation of low scrub jungle, seldom or never rising above the height of a man. Sluggish brackish streams creep along between banks of fœtid black mud. The sandhills on the verge of the ocean are carpeted with the fleshy leaves of creepers and the wild convolvulus which the antelope loves. Inland it spreads out into prairies of coarse long grass and scrub jungle, which harbour wild animals in great plenty; but throughout this vast region there is scarcely a hamlet, and only a patch of rice cultivation at long intervals. From any part of the Salt Tract one may see the boundary of the inner arable part of the district, fringed with long lines of trees, from which every morning the villagers drive their herds of cattle out into the saliferous plains to graze. The Salt Tract is purely alluvial, and appears to be of recent date. Towards the coast the soil has a distinctly saline taste. Solar salt-making has been minutely described in my chapter on the Chilká Lake. In Balasor artificial evaporation is preferred, and the process is as follows: At the beginning of December, the contractor selects his locality, about a quarter to half a mile from the sea, and engages a class of men called *chuliyás*, or heads of salt gangs. These men receive one shilling a hundredweight for whatever amount of salt they turn out. They, in their turn, engage working parties of *malangis*, who are paid at the rate of 3d. to 5d. a day. The ground is first marked out by a shallow trench, and the grasses and bushes are carefully dug up and removed. A deep ditch is next dug from the sea, by means of which, twice a month, the spring tides overflow the salt field, and fill a number of reservoirs, four feet in diameter, and two or three feet deep. A mound of earth is then piled up to the height of two feet, and from three to four in diameter. It is next hollowed out into the shape of a bowl, plastered inside with clay, and furnished with a hole at the bottom, covered with a layer of grass six inches thick. The salt-

makers fill this bowl with saline earth, scraped off the adjacent land, and pour the sea-water on it from the top. By the end of six hours the water has drained through into a pit at the bottom, and runs down a thatched trench towards a reservoir, whence it is transferred to the evaporators. The latter consist of a hundred and sixty to two hundred little unglazed earthenware pots, fastened together by stiff tenacious mud, and holding two quarts each. The neighbouring plains supply grasses for the fuel. Six hours' boiling completes the process. The brine, which consisted, in the first place, of sea-water charged to its maximum power of solution by percolating through the bowls of salt earth, subsides into dirty crystals at the bottom of the pots. It is then ladled out in spoons made of half cocoa nuts. The whole process is as rude and careless as can well be imagined. The total cost of manufacture is estimated at 2s. 1d. a hundredweight, which, with the Government duty of 8s. 8d., makes a total cost of 10s. 9d. From chapter II. of my Orissa it will be found that the cost of salt-making by solar evaporation in Purí District, amounts to only 8d. a hundredweight.

THE ARABLE TRACT lies beyond the salt lands, and embraces the chief part of the district. It is a long dead level of rice fields, with a soil lighter in colour than that of Bengal or Behar; much more friable, and apt to split up into small cubes with a rectangular cleavage. Where water has lain long on fallow lands, the surface throws up curious little mounds, which are speedily covered with grass, and look like a number of men's heads protruding from the earth. Another feature of the Arable Tract is the *Páts*, literally the Cups, or depressed lands near the river banks. They were probably marshes that have partially silted up by the yearly overflow of the streams. These Cup-lands bear the finest crops. As a whole, the Arable Tract is a treeless region, except around the villages, which are encircled by fine mango, pipal, banyan, and tamarind trees, and intersected with green shady lanes of bamboo. A few palmyras, date palms, and screw pines (a sort of aloe whose leaves are armed with formidable triple rows of hook-shaped thorns) dot the expanse, or run in straight lines between the fields.

THE SUBMONTANE TRACT is an undulating country with a red soil, much broken up into ravines along the foot of the hills. Masses of laterite, buried in hard ferruginous clay, crop up as rocks or slabs. At Kopári, in Kila Ambohatá, about two square miles are almost paved with such slabs, dark red in colour, perfectly flat, and polished like plates of iron. A thousand mountain torrents have scooped out for themselves picturesque ravines clothed with an ever fresh verdure of prickly thorns, stunted gnarled shrubs, and here and there a noble

forest tree. Large tracts are covered with Sál jungle, which nowhere, however, attains to any great height.

WATER SUPPLY.—Balasor District is watered by six distinct river systems. (1.) The Subanrekhá, properly written Suvarna-rekhá, the Streak of Gold, enters the district in the Fiscal Division of Fathábád, and forms the boundary between Balasor and Midnapur, flowing in a tortuous southern course, with gigantic bends from east to west, till it reaches the sea in lat. 21° 35′ north, and long. 87° 23′ east. It is navigable by country craft as high as Kálikápur, about sixteen miles from the mouth, to which point the tide also runs. Rice boats of two tons burden can make their way up to the end of the Balasor District, and during the rains, far into Morbhanj. The river banks are, as in most delta rivers, high and steep on the outer curve of the bends, against which the water cuts, and flat and sandy on the inner. The stream nowhere expands into lakes. It has no tributaries within the district, and although studded by islands, as old as our oldest maps, has long ceased any operations of diluvion or alluvion on a large scale. The country around the banks is cultivated to within a few miles of the sea, where it becomes jungly. The Subanrekhá is nowhere fordable within Balasor District during the rainy months. (2.) The intermediate country, on the south of the Subanrekhá and the north of the Burábalang, forms a great line of drainage down from Morbhanj. It is watered by a number of small streams, of which the principal are the Jamirá, Báns, and Bhairingí. They unite, bifurcate, and re-unite in the wildest confusion, and at length enter the sea, as the Pánchpárá, in lat. 21° 31′ north, and long. 87° 10′ east. The tide runs up only ten miles, and although their interlacings constantly spread out into shallow swamps, yet one of them, the Báns, is deep enough at certain parts of its course for boats of four tons burden all the year round. (3.) South of this network of rivers is the Burábalang, literally the Old Twister. It rises among the Morbhanj Hills in lat. 21° 24′, and long. 86° 36′, and after receiving two small tributaries, the Gangáhar and Sunaí, wriggles into the sea in lat. 21° 28′, and long. 87° 5′. The tide runs up twenty-three miles. In the upper parts of its course the banks are sandy, steep, and cultivated; in the lower part they are of firm mud, covered to high-water mark with black slime, and surrounded by jungle or open grassy plains. Brigs, sloops, and sea-going steamers can navigate as far as the town of Balasor, about sixteen miles up its twisting course, but the sand-bar across the mouth of the river renders the entrance difficult. (4.) On the south of the Burábalang, a network of rivers known as the Jámká, find their way down the line of drainage from the Nílgiri Hills, and enter the sea by many channels along the

coast of Dasmalang Fiscal Division. There is little or no navigation, as their mouths are very difficult to enter, nor are there any towns with a maritime traffic on their banks. (5.) The Kánsbáns, originally Kainsbáns, so called from the jungle of kains-grass and bamboos amid which it rises in Kila Ambohatá. It runs in a south-easterly direction, at first almost parallel with the Nílgiri Hills, and receives from them a number of nameless drainage streams on its northern bank. At Bírpárá it bifurcates, the northern branch retaining its original name, and entering the sea in lat. 21° 12′ 25″, long. 86° 52′ 10″. The southern branch receives the name of Gammaí, and falls into the sea six miles south of the Kánsbáns. This river is navigable only a few miles up, but it is celebrated for its sudden floods and the vast extent of country which it submerges in the rainy season. (6.) The Baitaraní, identified by the Bráhmans as the Styx of Hindu mythology, but possibly a corruption of Avitaraní, meaning difficult to cross, enters the district at the village Balipur, and flows for about forty-five miles in a south-westerly direction till it joins the Dhámrá, five miles from its mouth. The united stream enters the sea, under the name of the Dhámrá, in lat. 20° 47′, long. 87°. The Dhámrá is a fine navigable stream, but, like all the Orissa rivers, it is rendered perilous by a bar across its mouth. The Baitaraní forms the boundary between Balasor and Cattack. It is nowhere fordable during the rains, but everywhere fordable in the dry weather above Olokh, about fifteen miles from its mouth. At Olokh it ceases to be navigable, and the tide does not run above this place. It receives two fine tributaries on its Balasor side, the Sálandí and the Mataí. The former, properly called Sálnadí, takes its name from the Sál forests which it traverses. It rises on the southern slope of the Meghásaní mountain, literally the Seat of Clouds, in Morbhanj, and throughout its upper course is a black-water river with high banks and a bottom of muddy sand. In January it scarcely anywhere exceeds three feet deep. Luxuriant vegetation clothes its banks, which at times rise almost to the dignity of cliffs, and for miles the river runs through one continuous grove of mangoes, palms, and bamboos. It forms no islands or lakes, and has no tide, but it is navigable for country boats as high as six miles from its junction with the Baitaraní. Its lower course bifurcates into a network of streams which are interlaced with those of the Mataí. The Mataí brings down the drainage of the country between the Kánsbans and the Sálandí, and after a tortuous course over a muddy bed, and between densely wooded banks, enters the Dhámrá River near its mouth. A canal, the only old one in Balasor District, unites the Mataí with the Gammaí; but an embankment has been built right across its mouth, and it has ceased to be used for

traffic. The average loss of life by drowning, reported by the police during the last five years, amounts to seventy per annum, which is, however, much below the real figure.

Uses to which the Water is put.—Notwithstanding the abundant water supply, there is no great river traffic in Balasor. What little sea-going trade exists is carried on by natives of the Madras coast, and Musalmáns from Calcutta and Eastern Bengal. Non-navigable rivers are nowhere used as a motive power, nor are they anywhere applied to irrigation, except on a very small scale along the Sálandí for patches of tobacco, and vegetable gardens near villages. Nor are there any fishing towns or villages properly so called. The Kaibartta and Gokhá castes fish in rivers, tanks, or ditches all over the district. No statistics exist on this head; but a well-informed native official estimates the value of the fish at £1500 a year. This is probably below the mark; but only the lowest classes engage in the pursuit. The bed of the Sálandí is utilized to a small extent for reed plantations; and the long-stemmed rice, called *rábaná*, is successfully grown in seven or eight feet of water in the hollow cup-lands (*páts*).

Embankments cover the district in every direction. The largest series of them extends for about fifteen miles through the Fiscal Division of Ankurá, with a view to keeping out the sea. It was built right across the canal formerly mentioned, to prevent the tides from forcing their way into that channel, as they did great damage to the crops on either side. Although valuable as a defence against the ocean, this embankment intercepts the natural drainage from the land; and when the Gammaí and the Kánsbáns come down in flood, it has to be pierced in order to let the water through. In general, the embankments are intended to protect the country from the rivers during the rains. With what success will be found in my chapter on the calamities of Orissa, and in a subsequent part of this Statistical Account.

Natural Products.—Laterite is used for building, and the honey-combed variety was largely employed in former times for temples. All ancient statues and idols are carved in chlorite, obtained from the hills on the western boundary of the district. There are no forests nor jungle products in Balasor, nor any wide pasture lands.

Wild Animals.—The wild elephant, very rare; tiger, rare; wild buffalo, common; black bear, chiefly in north of the district; leopard, hyena, elk, blue cow (nîl-gái), spotted-deer, antelope, hog-deer, mouse-deer, wild dog, wild cat, civet cat, and hare. Among birds, the peacock, jungle-fowl, black partridge, red partridge, quails of two sorts, snipe, golden plover, wild ducks, and wild geese. Among fresh-water fish, the following twenty-three varieties are worthy of notice: Maurálí,

karandí, gorí, chenga, saul, mágorá, singí, báliá, chingrí, khasmerá, rohí, bhakurá, phelí, merkálí, kantíyá, kau, mirgá, bámtorí, bártorí, kharátorí, khayará, kálbánsí, and pahará. Sea-water fish swarm up the rivers, and form an important article of food. The following nineteen varieties of salt-water fish are caught in the estuaries of Balasor District: Ilsá (hilsa), rupápátiá, pápari, sílá, masálá, aliárí, koárí, gojí-karmá, táísí, bhektí, tayárí, phirkí, bahál, gochíyá, sásútankháí, láhámá, makundí, gangotará, and rándolá.

POPULATION.—A rough census was taken in 1840 for the Survey Officers. It gave a population of 651,003. In 1865 it was returned at 732,279. After the famine of 1866, the surviving population was estimated at 485,113, assuming at the rate of 5·06 persons per house. No subsequent effort has been made at a general census. The town population will be given in a later page.

IMMIGRANT RACES.—The population practically consists of the same races as in Purí District, except that the Bengali element is stronger, the Musalmán more respectable, and the Telingá much less numerous. There are only two Telingá landholders in the district,—petty proprietors, whose aggregate Government rental does not exceed £80 a year, but who are rich in merchandise. On the other hand, by far the larger proprietors are wealthy Bengali gentlemen, whose families have for some time been settled in Orissa, but who live in or frequently visit Calcutta. The Musalmáns hold ninety-three small estates, and pay a total land revenue of £1584 a year. In short, Balasor District approaches near to Bengal, both in its geographical position and its population. The descendants of the Marhattás are few in number, and scarcely distinguishable from the native population, except by their race name of Bargís.

EMIGRATION.—In 1865, 325 labourers were registered as emigrants from Balasor to Assam. In 1869 there were only 62. Great numbers of the Gaur caste, corresponding to the Hindi gwálá or cow-herd, go to Calcutta as palankeen-bearers, punkah-pullers, and domestic servants. But they never take their families with them, and always return to spend their savings at home.

CASTES.—The Bráhmans hold an unusually important position in Balasor. Their first settlement is conjectured with some reason to have been about 500 A.D., when, according to the legend, a pious monarch of Orissa imported 10,000 Bráhmans from Kanouj. It is the old story which is everywhere current throughout Lower Bengal. The ancient Orissa Bráhmans are said to have lost their caste, and the new colony from the north settled in Jájpur, literally the City of Sacrifice, then the capital of the province, and still an important town, recently transferred

to Cattack District. They are subdivided into two great branches (*srenis*) —the Purí, or southern branch, and the Jájpur, or northern branch. The origin of the southern branch, as stated in the Statistical Account of Purí District, is ascribed to the 450 Bráhman colonies which Rájá Anang Bhím Deo founded in Purí between 1175 and 1202 A.D. From about that date the existence of the two distinct classes is an historical fact, but they are separated by no hard and fast geographical line, and are now found side by side all over Orissa. They both claim descent from the pure Vaidik Bráhmans, and are classified according to the particular Veda which they profess to study. Each class is divided into Septs (*gotras*); for a full list of which in ancient times, forty-nine in number, see Max Müller's History of Sanskrit Literature, pp. 380–385, ed. 1859. Each sept is subdivided into families distinguished by surnames (*upádhis*). The southern, or Purí branch, is divided into three classes, the Rig-veda, the Yajur-veda, and the Sáma-veda. Of the Rig-veda class, the most important sept is the Basishtha, which is subdivided into two families, the Sharangí and the Mahápátra. The Yajur-veda is divided into the Bharadwáj Sept, including the Sharangí, Misra, and Nanda families; the Atreya Sept with the great Rath family; the Haritasa Sept with the Mahápátra and Dás families; the Kauchhasa and Ghritakaisik Septs with the Dás family; the Mudgala Sept with the Satpathí family; the Batsasa Sept with the Satpathí, Dás, and Achárjya families; Kátyáyan Sept with the Misra and Sharingí families; and the Kapinjala Sept with the Dás family. The Sáma-veda class is divided into the Kásyapa Sept, including the Nanda family; the Dharagautama Sept with the Tripáthí family; the Gautama Sept with the Udgátá or Utá family; the Parásar Sept with the Dibedí or Dubaí family; and the Kaundinya Sept with the Tripáthí or Tihárí family. The northern, or Jájpur branch of Bráhmans, is also divided into three classes,—the Rig-veda, Yajur-veda, and Atharva-veda. The Jájpur Rig-veda Bráhmans do not subdivide into well-marked septs. The Yajur-veda class is divided into the Kátyáyana Sept, including the Pandá family; the Sándilya and Krishnátreya Septs with the Pandá and Dás families; the Bhardwáj Sept with the Pandá family; the Barshagana and Kaphal Septs with the Misra family; and the Gautama Sept with the Kar family. Of the Atharva-veda class the only sept is the Angirasa, including the Upádhyáya and Pandá families. The southern branch is the more esteemed, probably from its close connection with Jagannáth, although teaching is considered a more honourable vocation for a Bráhman than service in the temple. They all profess to spend their lives in performing their strict caste duties, and do not engage in business, except as men of letters, as Government officials, and in the higher branches of land

management. Many of them, especially the heads of Sásans, or Bráhman villages, assume the title of Pánigráhí (handholder). Besides the Vaidik, or high Bráhmans, there is also a large class of Laukik, or worldly Bráhmans, who engage in business, and are less esteemed. They bear the sept names of Balrám-gotrí, Mastání, and Paniyárí, and are as numerous as the sacerdotal class. They are simply peasants, and cultivate nearly the whole of the Múlgáon Fiscal Division, with a large part of many others. I spell the names according to the local orthography, and the subdivisions of the Bráhmans well illustrate my remarks on the Classifications of Castes in the Statistical Account of Purí.

The so-called Kshattriyas of Orissa have already been discussed in that Account. Practically, the Karans rank next to the Bráhmans. They correspond to the position of the Vaisya in the ancient system of castes, but as regards their occupation and habits they are simply the Orissa counterpart of the Káyasths, or writer caste, in Bengal. They do not, however, intermarry with the latter, nor eat with them, but they have, as a rule, no objection to drinking water offered by a Káyasth to them. Mr. Beames, the Collector of Balasor, has noticed a similar peculiarity in certain of the castes of Behar. The Bhuinhár may eat with a Rájput only such food as is usually consumed on a journey or in a hurry. For example, parched rice or peas. Such customs seem to indicate that though the classes in question may not eat together when at leisure to attend to the rules of caste, yet, that owing to their close relationship, these rules may be relaxed on an emergency, as on a journey, or in war. Even the parched grain, however, should not be placed in a brass vessel, or in any of the dishes of regular life, but must be eaten out of the hand or on a leaf. The principal divisions of the Orissa Karans are the Krishnátreya, the Sankhyáyana, the Bharadwáj, and the Nágas. These families all bear the surnames of Dás or Máhánti; but those whose ancestors were the principal officers of the native Rájás, enjoy the title of Patnáik, or Chief Reader. The Rájá of the Tributary State of Athgarh is said to be the head of the Karans in Orissa.

The next caste in rank and importance is the Khandáit, properly spelt Khandáyat, literally the Swordsman, from the Uriyá, Khandá—a sword. Although a numerous and well-defined body, the Khandáits do not appear to be really a distinct caste. The ancient Rájás of Orissa kept up large armies, and partitioned the lands on strictly military tenures. These armies consisted of various castes and races, the upper ranks being officered by men of good Aryan descent, while the lower ones were recruited from the low castes alike of the hills and the

plains. On the establishment of a well-defined caste system, such troops took their caste from their occupation, and correspond to the military class in the fourfold division in Northern India. But with this difference, that in Northern India the military class consists of an ethnical entity, whereas in Orissa the Khandáits exhibit every variety of type, from the high Aryan of good social position to the semi-aboriginal mongrel taken from the dregs of the people. They have their septs (*gotras*) like the other castes, named after the ancient Rishis of Northern India, but these distinctions are modern, and they are really divided into Uriyás and Chásás. The former is the title of those who live in, or came from, districts where the population is not exclusively Uriyá, such as the hill country or the adjoining district of Midnapur. Chásá is the ordinary designation of the native Khandáits in Orissa, where it would be no distinction to call a man an Uriyá.

The lower classes may be arranged in thirty-nine divisions. Among them the following seventeen are accounted respectable and well-to-do in Balasor:—(1) Bhát, bards and genealogists; (2) Tántí, weavers; (3) Támbolí, betel-nut sellers; (4) Guriyá, sugar sellers; (5) Chásá, peasants who also call themselves Khandáits; (6) Kamár, blacksmiths; (7) Baniyá, merchants; (8) Máli, gardeners; (9) Dagrá, runners; (10) Gwálá, or Gaur, originally cow-herds, now divided into two classes, the Chálisghariá, who do not carry pálkis, and rank slightly above other gwálás, and the Kándhiá, who are pálki-bearers; (11) Barjí, pán growers; (12) Bhandári, barbers; (13) Thatári, braziers; (14) Golá, peasants; (15) Ráju, peasants; (16) Darzí, tailors; and (17) Kápariyá, cloth sellers.

The following twelve rank much lower, but are not wholly beyond the pale of respectability:—(1) Rárhí, purchasers of grain; (2) Telí, oil sellers; (3) Kánchrá, bell-metal workers; (4) Suri, spirit distillers and shopkeepers; (5) Keut, fishermen; (6) Dhobí, washermen and wood-cutters; (7) Barhái, carpenters; (8) Sankhári, makers of shell bracelets; (9) Nahari, makers of lac bracelets; (10) Kumbhár, potters; (11) Gokhá, fishermen; and (12) Khadál, greengrocers.

The following ten are considered utterly impure:—(1) Kandrá, employed in menial avocations; (2) Pán, ditto; (3) Bhuí, palankeen-bearers, coolies, etc.; (4) Dom, matmakers, thieves, etc.; (5) Ghusariyá, swine-herds; (6) Kelá, bird-catchers, beggars, thieves, etc.; (7) Chamár. This caste is divided into two classes, the Siyál or Sial, who make fans from the leaves of the palmyra tree, and sell the fermented date-juice, and the Mochi, who work in leather, and are of a lower grade in the caste than the Sial. (8) Tulábhiná, cotton carders; (9) Chhukár, the men being panders, and the women prostitutes; and (10) Mihtar, sweepers.

It is curious to note that the astrologers (Náyaks), although they wear the Bráhmanical thread, are held in great contempt, and reckoned so impure, that when they enter a house, the mats are taken up before they may sit down.

Religious Division of the People.—About eighty-five per cent. of the population are Hindus. There are no Jains or Buddhists. As already stated, the Musalmáns are a more important body in Balasor than in the southern districts of Orissa; but the Collector reports Islám to be on the decline. The Pániyábandhá, one of the Hindu low castes, have been converted to Muhammadanism; but the creed now makes no converts, and has hard work to hold its own, nor is it actively fanatical as in Eastern Bengal. There are no Wahábís or Farázís. The original Musalmán invaders have left few traces, and the Orissa Muhammadan has little in his personal appearance to distinguish him from the Hindu, except his beard. The Bráhma Samáj established a congregation in Balasor Town on the 9th October 1869. They are very zealous; and although consisting at first of only four members, had increased to nineteen in six months. Only seven, however, are natives of the province. The rest are Bengalis in Government service; and the strong attachment of the Hindus to their ancient rites, here as elsewhere throughout Orissa, affords small prospect of conversions on a large scale. There are two settlements of Christian missionaries belonging to the Free Will Baptists from Dover, New Hampshire, U.S. The principal one is at Balasor, and counts 154 native converts, whose social status seems to be better than that of native Christians in other districts. Two or three hold respectable positions in the Government service, and the main body of them are industrious mechanics or peasants. They have an important out-station at Sántipur, near Jaleswar, with eighty-five native Christians engaged in agriculture; and an interesting Christian village at Mitrapur, in the Nílgiri Tributary State, consisting of thirty-one persons. They are all small husbandmen, but well-to-do. There are also two promising schools of orphan children, rescued from the famine of 1866, and containing 112 Christian children. The Rev. Father Sapart presides over the Roman Catholic mission in Balasor, of which a brief account will be found in my general Account of the Province. A small house of nuns devotedly aids him in his good work.

Distribution of the People into Town and Country.—For the history of the town of Balasor see my chapter on Orissa under English Rule. It has declined since the Government abandoned the monopoly of the salt trade; and rows of dismal black salt-sloops lie rotting in little channels leading out of the river, which

were once docks. There are probably about 200 of these melancholy memorials of departed prosperity. The town is situated in lat. 21° 28′ 45″ N., and long. 86° 59′ 33″ E., on the Burábalang, about eight miles from the coast, as the crow flies, and sixteen by the river. On the bar at the mouth there are twelve to fifteen feet of water at spring-tides, but not more than two or three feet at low-water in the dry season. Large ships have to anchor outside in the open roadstead. The Burábalang River has been described in the section of this Statistical Account which deals with the Water Supply of the District. Horsburgh gives the following directions for making the anchorage :—'*Balasor River.*—The entrance is in lat. 21° 28′ N., and a little to the eastward of the meridian of Point Palmyras. From the Point, all the low coast is planted with trees, until within two or three miles of the entrance of the river, which on both sides is destitute of them, having a sandy barren aspect; by this it may be known, particularly by the small sand-hills on the N.E. side. When the Nílgiri Hills, situated inland to the westward, are seen, they answer as a good mark for a ship having occasion to proceed to the anchorage. With the extremity of the southernmost, or Long Hill, W. ½ S., the peak of the middle one appearing highest and separated from the others W.N.W., or W. by N. ¾ N.—the smallest to the N.E. bearing N.W. by N.—a ship will have a good berth in five fathoms mud, with the entrance of the river about N. by W., off shore five or six miles. The banks here are very flat, the depths being two and a half and three fathoms about four miles from the land. From the anchorage in five fathoms the peak of the Nílgiri Hills bears W.N.W., distant nineteen miles; and from Balrámgarí, at the river's entrance, it bears W. ½ N., distant fourteen miles. A boat proceeding for Balasor River should carry a compass, and in crossing the bar, ought to bring the flagstaff at Balrámgarí, or the Bankshall House, N.N.W.; keeping it on this bearing will lead her to the outer beacons, which are poles placed on each side the entrance of the bar. From hence the channel lies directly towards the S.W. point of the opening of the river, where the passage is marked out by beacons or poles on each side, placed at convenient distances on the extremities of the shoals. At full and change of moon it is high-water about ten o'clock, and the tide rises from twelve to fifteen feet in common springs, but there is not more than two or three feet on the bar at low-water in the dry season; it is, therefore, proper not to attempt to pass over until the last quarter flood, for the sea breaks high upon it during the first quarter flood, particularly during the S.W. monsoon.' The rules and limits of Balasor Port will be found in Government Notification, No. 621, dated 30th March 1858, by

which it was declared subject to Act xxii. of 1855. For the trade statistics of the Ports of Balasor District, see the concluding page of this Account.

THE TOWNS in Balasor District are mere collections of hamlets, sometimes clustering into crowded streets and bazaars, but in many places separated by clumps of trees and rice fields. Village life goes on in the heart of Balasor city, just as it does in the remotest homestead. The cows are driven forth in the morning, and come back at night. In harvest time the bullocks tread out the corn, and eager families busy themselves in piling up rice-stacks within sight of the market-place. Nearly every shopkeeper has his little patch of land, to which he clings with all the fondness of a Hindu peasant. The people exhibit no tendency to collect into cities. On the contrary, the towns of Balasor and Soro have certainly declined; and several other towns, such as Bhadrakh and Jaleswar, seem to have been larger in former times than they are now. Only four deserve separate mention, namely —(1) Balasor, properly spelt Báleswara, with a population of 6883 males and 7104 females, total 13,987; (2) Bhadrakh, 3455 males, 4346 females, total 7801, with four persons to each house; (3) Jaleswar, 1712 males, 1745 females, total 3457; and (4) Soro, 1363 males, 1308 females, total 2671.

MATERIAL CONDITION OF THE PEOPLE.—Almost the whole population lives by agriculture. A well-to-do husbandman has one or two pairs of bullocks and four or five milch cows. His entire holding is generally under rice, with the exception of a small patch around his house, in which he raises a small crop of cucumbers, gourds, and plantains. The peasantry still bear the marks of the famine of 1866, but the country is fast recovering itself, and the rich harvest of 1869–70 has done much to restore the district to its former state. The houses of the cultivators consist of four mud walls enclosing a court, and used as the gables of little rooms which line the court inside. A Balasor husbandman has usually at least five of these little apartments, one for his cows, another for his cook-shed, a third for storing his paddy, and two rooms for sleeping and general use. There is generally a verandah outside the wall on both sides of the principal door, for receiving strangers, and as places where the men of the family talk and lounge. Sometimes, but rarely, the cow-shed is built outside the walls. The mud enclosure stands in the middle of a bright green patch of vegetables, and the whole is shut in with a good fence of prickly shrubs. The summer dress of a Balasor peasant is a cotton girdle (*dhoti*) falling over the thighs, and tucked up when at work, with a scarf (*gámchá*) thrown over his shoulder. Occasionally a turban envelopes his head.

A well-to-do shopkeeper has an ample cotton shawl (*chádar*) instead of the scarf, and sometimes wears it twisted round his head and ears. He has also a pair of coarse shoes with long turned-up toes, no heels, and elaborately, though roughly, embroidered with coloured thread. The Uriyá shoe is quite unlike anything in Bengal or Behar. In winter the peasant wraps his head and the upper part of his body in a thick double sheet (*dohárá*), while the shopkeeper indulges in a broad cloth scarf (*lui*) and a cotton shirt. A peasant's furniture consists of a few brass pots, platters, and cups, one or two very rude bedsteads, a few mats, and often some instruments of defence, such as a bow and arrows, a sword, or a spear. The better class have generally one or two palm-leaf books on Hindu Mythology in their houses, or a legend out of the Mahábhárata or Rámáyana. Rice and milk form the peasant's food. Even dried fish is a luxury. The year's supply of it is stored up in reed baskets, and sparingly doled out. Vegetables are also luxuries not always within reach. The peasants set aside their boiled rice till it turns slightly sour, and esteem this unpalatable mess a favourite article of diet. Speaking generally, the shopkeepers are rather better off than husbandmen who hold the same position in the social scale.

Crops.—Rice is the staple crop of Balasor, as of all other districts in Orissa. It is divided into five great *genera*, and forty-nine principal varieties. (1) The Dálua rice, sown on low lands in December or January, and reaped in March or April; grown chiefly in the Fiscal Divisions of Bayáng and Káyámá. It is a coarse, red, unwholesome grain. Its principal varieties are the Dálua, Lakshmínáráyanpriyá, Bámanbáha, Antarakhá, and Sarishphul. (2) Sáthíyá rice, sown on high lands in May or June, and reaped in July or August; common throughout the district. Its principal varieties are, Dudhsará, a fine white, and Kalásuri, a coarse red grain. (3) Niyáli rice, sown on high lands in May or June, and reaped in August or September; common throughout the district. It is a coarse but wholesome grain. Its principal varieties are Náradá, Kakháruyá, Champá, Parbatíyá, Gobrá, and Pándabnáli. (4) Kandhá rice, sown on middling lands, throughout the whole district, in May or June, and reaped in September or October. A white, wholesome grain. Principal varieties, Máru, Pátmahádei, Geti, Motrá, Chotrá, Kártiknakhí, Asviní, Padágaruyá, and Syámali. (5) Guru rice, sown on low lands throughout the whole district, in May or June, and reaped in December or January. Principal varieties, Básudebbhog, Charháinakhí, Lakshmíkajjal, Gangábáli, Gangájal, Tulsikeri (fine), Dudhsará, Sarsinhá, Pasákáti, Nimái (white sweet-smelling), Palásgundi, Kentákarpur, Kanakchor, Hundá, Methibás, Pipiribás (fine

sweet-smelling), Dhusará, Kayá, Kukum, Rangi, Kanásáru, Sankarsáli, Champáisali, Kalámantá, Básgajá, Rábaná (a long-stemmed variety, growing in eight feet of water, with a coarse grain), and Dembur-pakhiyá (a very coarse grain). Among other crops, (1), wheat, with its varieties Dadhiyá Goham and ordinary Goham, is sown on high land in September or October, and reaped in March. (2) Mug (Phaseolus Mungo), with its two varieties, Kalá Mug and Jhái Mug, sown on high and middling high land in August or September, and reaped in December. (3) Harar, red and black, sown in June, and reaped in December. (4) Barguri, sown in August or September, and reaped in December. (5) Birhí, with its two varieties, Noyá and Dáuliyá, sown in June, and reaped in December. (6) Sarishá mustard (oil-seed), with its two varieties, Rái and common Sarishá, sown in October, and reaped in December. (7) Hemp, sown in May or June, and reaped in August or September. (8) Tobacco, sown in October, and cut in March. (9) Cotton, with its two varieties, Mari Kápás and Haldi Kápás, sown in June, and gathered in April; and (10) Sugar-cane, with its three varieties, Kantári, Kadilgorá, and Báusiyá, sown in May, and cut for conversion into molasses in December. The cultivation of these crops is sparingly carried on throughout the district. Betel-leaf is grown in the Fiscal Divisions of Senáot, Pánchmalang, Soso, Sárathá, and Bhográi.

Of late years there seems to have been an improvement in rice cultivation, the finer varieties being more extensively grown than formerly. Every peasant now likes to have at least one field of the finer sort, although the main part of his holding is devoted to the more easily cultivated coarser varieties. No superior cereals have been introduced, however, nor has any marked extension taken place in the quantity of land devoted to rice. It is the one great crop of the district, and the Orissa husbandman has twenty-six distinct names for it in its different stages. As seed, it is bihán; when the seed has sprouted, it is gajá; the first young shoots are talá; the green plant, buáli; the mature plant, páchládhán; in sheaves, dhánpurá; unhusked rice, dhán; husked rice, chául; rice parched with the husk on, khai; rice husks, tus; fragments of husks and outer shell of rice given to cattle, kundá; rice steeped with the husk on, then slightly boiled, husked, and parched with salt, muri; rice boiled in the husk, and husked when warm, churá; a preparation similar to muri, hurumo; another kind of the same, mangráji; a cake made from rice flour, pithá; plain boiled rice, bhát; rice boiled with split-peas and spices, khen-churí; rice cooked with meat (piláu), pitan; khai sweeted with sugar, ukhurá; parched rice when ground, chhátu; rice boiled with milk and sugar, kshírí; thin rice gruel, jáu; rice cooked and set aside till it

becomes sour, pakhál; the water of the above without the rice, toráni; rice spirits, poshti.

OUT-TURN OF CROPS.—Good land at six shillings an acre yields from twelve to fifteen hundredweight of coarse paddy, and from eleven to thirteen and a half of fine. Land paying three shillings an acre yields from six and a half to nine hundredweight. The price of the crop depends on many local circumstances; but a fair average value would be twelve shillings for the crop of an acre of land paying three shillings an acre, and a pound for the crop of an acre paying six shillings. Lands lying along the banks of rivers yield a second crop of pulses or oil-seeds, such as Birhi, Mug, Jará, and Sarishá, at about three hundredweight per acre, worth from twelve to sixteen shillings.

CONDITION OF THE PEASANTRY.—Balasor is a district of small estates, and the proverbial harshness of petty landlords is intensified by the perplexing way in which their lands are split up. An estate generally consists of a village in one Fiscal Division, perhaps two in another, and four or five in as many more, all distant from each other. But worse than these ordinary estates are the 'separate collection lands' (*tahsíl aláhidá*). Such an estate, although forming a fiscal entity, and bearing but one number in the district rent-roll, often consists of sixty or seventy small parcels of land, scattered over the whole district, with two or three acres in one village, and one or two acres in another thirty miles off. The confusion is increased by the frequency of a tenure known as Wages, or Pension-land (*múájib*), in which the granter bestows a definite portion of land in every village of the estate. Thus, if he wishes to bestow one-sixteenth of his property, instead of giving land to that amount in one place, he makes over one-sixteenth of the land of every one of his villages, so that, as in the case of the Fiscal Division of Soso, almost every hamlet has one proprietor who possesses it as a whole, and another who possesses part of it as Pension-land. In addition to these elements of confusion, there are more than 33,000 rent-free estates, which average less than four acres apiece. Such grants, even although they may not exceed ten acres in extent, will often be in ten different plots in as many different villages. The proprietors have also a passion for having their land parcelled out by the process of law known as batwárá. In one case, under Regulation xiv. of 1819, actually pending while I write these lines, an estate of 8958 acres, scattered through forty-eight villages, has nine registered proprietors, each of whom demands the most minute subdivision of the land. It is impossible to put their claims into any English nomenclature, but the following represents three of them as they are filed in the Court:—The claim of number

one is two ánás, ten gandás, three kauris, fifteen biswás, two gandás, one kauri; that of number five is one ána, two gandás, three kauris, one kránti, nine biswás, fifteen gandás; and that of number seven, one áná, fifteen gandás, two kauris, one kránti, fourteen biswás, six gandá. This is merely a fair average case. Such a state of things gives rise to endless boundary disputes. The landholder is necessarily at a distance from the greater part of his scattered land, and takes but little interest in the husbandmen. Instead of having a compact tenantry living together, who could be dealt with in a corporate spirit, he has two or three tenants scattered over forty or fifty distant villages, with whom his only connection is the periodical demand for rent. Each proprietor is eager to get every scrap of his land under tillage; nor can he afford, like the territorial magnates of Bengal, to leave large tracts for pasturage,—a parsimony that makes itself visible in the miserable condition of the cattle. His poverty further compels him to rack-rent all tenants not protected by a right of occupancy. A hungry landlord cannot afford to be generous. The husbandmen on their side have to be content with small holdings. In order to get a good-sized farm, they would have to hold under two or three proprietors, and would thus be exposed to the accumulated tyranny of many masters. If they determined to obtain a good-sized holding under one landlord, they would have to take fields in widely distant villages, and would thus lose time in going to and fro. Large farms are, therefore, unknown. The Collector reports that there are not more than one hundred holdings of from twenty to a hundred acres in the District of Balasor, with its 656,000 acres of cultivable land. Even the few farms that exist of these dimensions are generally held by families of brothers, who cultivate the land in common. From ten to twenty acres is a good-sized holding; and twenty-five per cent. of the farms in the District are of this size. About sixty per cent. are below ten acres. The Collector estimates the average size of a holding at eight acres. The cattle are so poor that one pair of oxen cannot possibly work more than six acres. Fifteen acres make a peasant substantially as well off as a respectable shopkeeper. His dress would be coarser, but he would eat more. As regards actual comforts, he would be much better off than a well-to-do man on a salary of sixteen shillings a month. But, unfortunately, the husbandman is almost always in debt. The landlord, or the village usurer, swoops down on him at harvest time; and so much of his rice goes in satisfying their claims, providing clothes for his family, contributing to the priests, and giving a feast to his friends, that he can seldom keep enough of his crop to live on to the next harvest. About the month of June he begins to borrow again,

and the amount accumulates with compound interest till the December harvest. The landholders are the chief rice lenders. They are not so oppressive as the village usurers of Bengal. Money loans are rare; and the long-standing hereditary accounts, which are the curse of the peasantry in other parts of India, are the exception in Balasor. The village usurer is almost unknown in Orissa.

TENANT RIGHTS.—The Balasor husbandmen are divided into two classes, as in the other districts of Orissa,—the Thání and the Páhí. The Thání cultivators have a right of occupancy. The Collector estimates their number at 30,000; of whom one-half hold at rents not liable to enhancement at all, and the remainder at rents which can only be enhanced by a decree of the Court. He reckons the Páhí cultivators or tenants at 50,000, or five-eighths of the entire peasantry. The numerous holders of rent-free patches cultivate with their hands; but generally speaking, few proprietors of revenue paying estates do so. The distinction between landlord and tenant is well marked in Balasor. As the Thání husbandmen hold under the Government Settlement Papers, Act x. of 1859 has but little operation in Balasor; only ninety cultivators having established rights of occupancy under that law. These cases have generally occurred from the landowner taking advantage of the cultivator's eagerness to extend his holding, and getting him to give up his old lease for a new one, conveying a larger quantity of land. The proprietor then sues for an enhancement of the entire rent, on the ground that the holding commences from the date of the new document. But the Courts, in such cases, have confirmed the husbandman in his right of occupancy with regard to his original holding, and allowed the enhancement only in the recent addition to it.

Eighteen shillings a month is a comfortable income for a peasant family of five persons, allowing 2s. for clothing; 14s. for food, which would provide two and three-quarter hundredweights of rice, with a small quantity of oil, fish, and vegetables; 1s. for the family barber, blacksmith, washerman, and priest, who are paid in kind at harvest.

PRICES AND WAGES (1870).—Both buffaloes and oxen are used in agriculture. Sheep and goats are so few in number that the Collector believes them not to be indigenous, and thinks they have grown smaller since they were introduced. An average cow costs 24s.; a pair of oxen, from 50s. to 70s.; a pair of buffaloes, £3; a score of sheep, when procurable, £4; a score of kids, six months old, 30s.; a score of full-grown pigs, £5. The price of the latter animal, however, greatly varies. The wages of day-labourers are now from 2¼d. to 3d. a day; in 1850 they were 1½d. Carpenters used then to earn 3d. a day;

they now get 5¼d. Smiths and bricklayers were satisfied with from 3¾d. to 4½d. a day in 1850; they now earn 6d. The cost of the necessaries of life has increased in the same ratio. The price of the best unhusked rice, such as the upper classes use, was one hundredweight and three-quarters for 2s. in 1850, one and a half hundredweight in 1860, and three-quarters of a hundredweight in 1870. The finest cleaned rice was one hundred pounds for 2s. in 1850, eighty pounds in 1860, and forty pounds in 1870. But the great increase of price shown in the higher qualities is hardly a test of the general cost of living. Common rice, such as day-labourers use, is reported at one hundred and twenty pounds for 2s. in 1850, one hundred pounds in 1860, and seventy pounds in 1870. Wheat is reported at thirty-three pounds for 2s. in 1850, twenty-nine in 1860, and eighteen in 1870. Sugar-cane sold at 256 pieces for 2s. in 1850, 192 in 1860, and 128 in 1870. Common distilled liquor sold at 8d. the imperial quart in 1850 and 1860; it now sells at 1s. 4d. The local divisions of time are sixty bilítás or half-seconds = one lítá, or half a minute; sixty lítá = one danda or half an hour; two danda = one gharí; three gharí = one pahar or watch of three hours; eight pahar, or sixty-four danda = one ahorátra, or from sunrise of one day to sunrise of the next. Seven din (days) = one saptáha (week); two saptáha, or fifteen days = one paksha; two paksha = one más (month of thirty days); twelve más = one batsar (year); twelve batsar = one yug. Unhusked paddy is measured by the gaun (bushel), which is said to contain twenty pounds, but seldom contains more than fourteen. It is in fact a most variable measure, changing in almost every Fiscal Division, and sometimes in different villages of the same division. The gaun consists of twenty pautís. The outlying parts of the District have local measures of their own, unknown in the town of Balasor. Distance is measured as follows,—Twenty gandás = one chhaták; four chhaták = one páo; four páo = one kos of 12,000 feet, or about two and a quarter miles; four kos = one yojan, or nine miles.

A small husbandman with five acres has a plough, mattock, sickle, harrow, pickaxe, rake, rope, stake, pack-saddle, rope-net, and a pounder for husking rice. The total cost of these implements, together with a pair of bullocks, amounts to about £4.

Day-Labourers were formerly a numerous class in Balasor, but they suffered severely in the famine of 1866, and are now few in number. They are called Múliyás, and find employment in tilling the land of the larger proprietors, on wages of nine pounds of rice per diem. They do not supply the seed or implements, but only their manual labour.

Waste Land.—Before the famine of 1866 there was scarcely an

acre of spare land in the district. Since then many fields have fallen out of tillage for want of cultivators. The Salt Tract and the hilly ravines always remain waste; but in the normal condition of the district, very little land that could be tilled at a profit is left unoccupied. The herds of small hungry landholders cannot afford to leave even a field in pasture for the cattle. There are, therefore, no jungle-reclaiming leases, nor other tenures favourable to the peasant. When Government gave up the manufacture of salt, and the salt lands returned to the proprietors, some of them tried to induce husbandmen to settle on them at easy rates. But this plan did not produce any important results; and when the famine came it was relinquished. Intermediate holders between the proprietor and the cultivator, such as patnidárs or thíkádars, are almost unknown. The landholder settles his estate directly with the resident (thání) and migratory (páhí) cultivators. Most of the former had their rents fixed by the settlement officers, and the proprietor has no power to raise them. But a body of new resident tenants has sprung up, consisting of husbandmen who have come in since the settlement, and hold under engagements with the landholder on such terms as they can obtain. The páhí, or so-called migratory husbandmen, cultivate from year to year, and get land at the best rates they can.

RENTS vary according to the liability of the land to devastating floods. I append the rates for the best sorts ot two-crop land, and of winter rice land in each of the Fiscal Divisions. But the following general description will be found perhaps more useful, as giving a practical view of the whole subject. The lowest sort of soil is called *jal*, or water land. It pays from 9d. to 4s. an acre, and in very rare cases as high as 6s., but averages about 3s. It produces inferior kinds of rice. The *kálá*, or black soil, ranks next. It pays from 1s. to 8s. an acre, and averages 4s. It grows all sorts of pulses, mustard, hemp, etc. The next quality is the *pál*, which produces the finer kind of rice, and all the other crops grown on *kálá*. It pays from 4s. to 10s. an acre, and averages 6s. The highest class of land is the *olam*, or the fields lying around the homesteads. They are devoted to vegetables, and other expensive crops, such as tobacco or sugar-cane, and pay as high as 25s. an acre, but may be estimated to average 15s.

The following are the rates of rent in the Fiscal Divisions of Balasor for the best qualities of two-crop and winter rice land. In Ará-rupauyá, for winter rice land 4s. an acre. In Armalá, 3s. 1½d. per acre for winter rice land. In Arso, 6s. 3d. an acre for winter rice land. In Ahiyás, 8s. for two-crop, and 3s. 1½d. for winter rice land. In Ankurá, 9s. 4½d. for two-crop, and the same for winter rice land. In

Bálkhand, 6s. 3d. for two-crop, and the same for winter rice land. In Bánchás, 8s. and 7s. 2d. respectively. In Bayáng, 18s. 9d. and 5s. In Bisalkhand, 4s. for two crop-land. In Bastá, 1s. 9d. and 2s. 6d. respectively. In Bher, 12s. 6d. and 9s. 4½d. In Bhográi, 12s. 6d. for winter rice land. In Chhánuyá, 5s. and 2s. 6d. In Dhámnagar, 8s. 2d. and 9s. 6d. In Dasmalang, 3s. 0½d. and 2s. 4½d. In Dolgrám, 6s. 3d. and 6s. 3d. In Dararáchaur, 3s. 7½d. and 1s. 6¾d. In Garhpadá, 1s. 6d. and 1s. 7½d. In Julang, 3s. 3d. for winter rice land. In Kátiyá, 6s. 3d. and 6s. 3d. In Kátsáhi, 2s. 10¾d. and 1s. 6¼d. In Kismatkatsaí, 10s. 9d. for both descriptions of land. In Kamardáchaur, 9s. 4½d. for winter rice land. In Kunardáchaur, 2s. 6d. and 1s. 7d. respectively. In Kundi, 3s. 4½d. and 2s. 9d. In Khejurí, 2s. and 3s. 9d. In Múlgáon, 4s. 3d. and 3s. 6d. In Muldáchor, 1s. 10d. In Mukhrá, 3s. 9d. In Nápo, 5s. for winter crop land. In Nángaleswar, 2s. 6¾d. and 1s. 8¼d. respectively. In Nunkhand, 4s. 2d. and 2s. 4½d. In Phulwar, 1s. 10½d. and 2s. 6¾d. In Ráutárá, 6s. 3d. and 5s. In Remuná, 4s. and 5s. 6d. In Rádiyáorgará, 6s. 3d. for both descriptions of land. In Senáot, 12s. 6d. and 18s. 9d. respectively. In Sunhat, 4s. 7d. for winter crop land. In Soso, 12s. 6d. and 18s. 9d. In Sháhbandar, 11s. and 10s. 3d. In Sátmalang, 6s. 3d., and in Sárathácbaur, 1s. 7d. for winter rice land. In Siádihi, 2s. 3d. and 2s. 7½d., and Talsabang, 3s. 2¼d. and 4s. 3d. respectively. In the above list, I have given the Fiscal Divisions as stated by the Inundations Committee of 1866. The Surveyor-General's list will subsequently exhibit a more minute classification of them.

MANURES consist of cow and buffalo dung, ashes, rotten straw, and black earth from the bottom of tanks. Land is thoroughly manured at least once in five years; about ten hundredweight being allowed for rice, and a ton for sugar-cane. The cost when the materials have to be bought is about tenpence an acre. Land is seldom left fallow, and, indeed, to have fallow land is looked upon as a calamity. The cultivators are acquainted with a rotation of crops consisting of rice and cotton, but they practise it only in the Fiscal Division of Senáot, and on a few patches of land along the banks of the Subanrekhá.

BLIGHTS are not common, but a small insect called *punhárá*, the same as the *genrui* of Hindustán, occasionally does some mischief. It cuts through the ear of the rice while still green. For a description, see Sir Henry Elliot's Glossary, Mr. Beames' edition, vol. ii. 327.

FLOODS AND DROUGHTS are the scourges of the District. The former result from the sudden rising of the rivers in the hill country and Tributary States. The Burábalang and Sálandí do comparatively little harm, but the Subanrekhá and Baitaraní devastate the country

almost every year. From 1832 to 1867, £62,584 of Government revenue have been remitted in consequence of floods, and £61,866 in consequence of drought, making a total of £124,450 during the thirty-five years, or £3555 per annum. This subject has been fully treated in my Orissa. The protective works against floods consist of embankments, the maintenance of which has, including establishment, amounted to £9182 during the twenty-four years of which records are found, preceding 1866. This would represent the interest on £183,640 at five per cent. During the seven years from 1860–61 to 1866–67, the total outlay by Government for protective works and remissions of revenue averaged £4026, or a charge of ten per cent. on the whole land revenue of the District.

Even this vast outlay wholly fails to control the water supply of the District. The two principal embankments are the Bhográi and Salsá Pát, on the lower reaches of the Subanrekhá. The great Nuna, or salt embankment, has already been alluded to. It runs for many miles along the sea-face of the Fiscal Division of Ankurá, and is intended to keep out the sea. Sometimes, however, this embankment produces the very evil it was constructed to prevent; as in 1867, when it prevented the waters of the Gammaí from escaping. The embankment fortunately gave way before the pressure of the river, and the waters rushed through the breach. The Bhográi embankment is a new work only just completed (1870). At the mouth of the Subanrekhá was an old embankment constructed by the Marhattás, and afterwards replaced by another built by the British Government. Both of these embankments were constructed too close to the river to allow the water to escape freely in time of floods. These have both been destroyed, and the present Bhográi embankment runs further back so as to give plenty of waterway for the floods, and thus prevent the overflowing in the higher parts of the rivers which formerly resulted from the narrowness of their outlets. The Bhográi embankment, by allowing a good passage for the escape of water during flood, will render the Fiscal Divisions of Bhográi, Kamardá, Nápo, and Jaleswar less liable to inundation than in time past. The other large embankment, the Salsá Pát, on the opposite side of the river, protects the southern Fiscal Divisions of the District. The embankments on the other rivers are numerous, but small, and made without reference to any general system of protection from floods. If they do good to the village in which they are situated, they often do harm to villages on the opposite bank, by throwing the set of the current on to the other side. The Collector states that a general scheme of embankments having reference to the protection of the whole District, instead of, as at present, for the benefit

of particular villages or landholders, is urgently needed. The floods are of short duration, but quite unmanageable while they last. The rivers rise to a great height in a few hours, and rush with extreme violence. The obvious plan would be to secure as straight a course as possible for the water from the hills to the sea, so that it may run off quickly and not be driven from bank to bank, and impeded at every turn. This, however, would necessitate the sacrifice of villages occupying projecting tongues of land on the banks. But if the estates in the District were large, the landholders would probably not object to give up one or two villages to save the rest. In the Fiscal Division of Bhográi this was done, the proprietor having readily accepted six shillings an acre for 1000 acres so sacrificed. In other parts of the District estates are so small that the village to be given up would often form the sole property of some half-dozen petty landlords, who could not afford to part with it without heavy compensation, as, in addition to the loss of their rents, it would also deprive them of their status as landholders. The Collector reports that the objection which has been raised to the straightening of rivers in some parts of Bengal, namely, that the water would run away too quickly, does not apply to Balasor, where the rivers are not used for irrigation purposes in their lower reaches, or for navigation in their higher. There is no navigation to speak of beyond tidal limits, and even that almost entirely ceases before the flood season. Sufficient water for shipping is supplied by the tide, and irrigation in the higher courses can be provided for by anicuts and canals. The Collector is of opinion that the works already sanctioned, if supplemented by a well-devised general embankment scheme, would render the district secure against damage by flood.

Droughts arise in Balasor from the absence of local rainfall. The failure of the rivers seldom produces drought, as the people do not use their waters, except to a very limited extent, for irrigation. Four great droughts have occurred in the District within the recollection of the present generation, viz. in 1836, 1839, 1840, and 1865. No provision exists against damage caused by want of rain. The tanks and other receptacles of local drainage are not available for irrigation, and the rivers are allowed to carry away their water unused to the sea. The Collector mentions as an instance of the reluctance of the people to utilize the rivers, the case of the Fiscal Division of Rádiyá-orgará, which suffered severely from want of rain in 1869. The River Sálandí runs through the centre of this Fiscal Division, and when the drought made itself felt, and the people were praying for help, the Collector asked them why they did not use the river-water as a means of irrigation. They only replied that it was not the custom; that the proprietors of

land on the rivers' banks would object to channels being cut through their lands for the purpose of carrying water to fields further inland; that it would be very hard work; that it would not pay, and that river-water was not so fertilizing as that which came 'from heaven.' At all events the river-water was not used, and the crops perished in consequence. The Collector reports that the projected Cattack and Midnapur Canal would be of the greatest value for purposes of irrigation. At the same time, he anticipated that the people would be very unwilling to use the water, especially if a high rate be charged. Without going into this difficult question, it will suffice to state that the Collector strongly recommends a general irrigation rate upon all fields within reach of the canal-water. He thinks that under such circumstances the villagers would very soon avail themselves of it, especially if the rate did not exceed two shillings an acre.

There is, however, to a certain extent, a compensating influence in droughts and floods. One part of Balasor, namely the triangular tract between the Sálandí river, the Cattack high road, and the district boundary, lies high. The country on the north of this triangle is rather lower, as also are the Fiscal Divisions on the west and north-west of Balasor Town. While heavy floods drown the lowlands, the higher levels escape, but the fertility of the uplands is not increased in anything like a proportionate degree, as the very fact of their being higher, causes the river-water to flow off the more suddenly. If the floods are caused by an excessive local rainfall, which occasionally happens, the dry uplands profit in a more commensurate ratio. But the Balasor District does not present such extremes of dryness or moisture that any considerable area ordinarily lies fallow in the uplands for want of rain, or upon the lower levels, on account of the marshy character of the land. In years when there is a scanty rainfall, however, the low-lying tracts make up in an important degree by their freedom from flood, for the loss of crops in the arid higher levels. The páts, or cup-lands, produce magnificent harvests in dry seasons, while the higher tracts suffer severely. Thus, in 1869-70, the high triangular tract, mentioned above, yielded only half a crop; but the cup-lands so liberally compensated for their sterility, that the Collector refused to apply to Government for relief measures, and the result amply justified his decision.

It may be accepted as a rule in Balasor, therefore, that in years of drought, the sterility of the higher levels may often be compensated by the increased fertility of the lower ones. But in years of excessive floods, the small amount of upland country cannot produce a commensurate increase to the loss of crops in the low-lying tracts. Gene-

rally speaking, therefore, a year of floods does more harm than a year of tolerable drought, as the seven following instances prove. In 1823, unhusked rice rose to 3s. 3d. per hundredweight in consequence of floods. In 1831 and 1832 it rose to 3s. 4d. per hundredweight for the same reason. On the other hand, the years 1836, 1839, and 1840 were seasons of drought. In the first of them, unhusked rice rose only to two shillings per hundredweight; in the second, to three shillings; and in the third, to two shillings and eightpence. In 1848 floods again raised the price of unhusked rice to three shillings and fourpence a hundredweight. But while the general effect of floods is to raise prices higher than droughts, a total abstinence of rain produces the climax of misery. Thus, in the great famine year, 1865-66, unhusked rice rose to thirteen shillings and fourpence, and husked rice to the starvation rate of £1, 14s. 8d. a hundredweight.

FAMINE WARNINGS.—Local prices have returned to very nearly the same level as before the famine of 1866. The Collector believes that they will never quite do so, as the price of everything has risen, or, in other words, the purchasing power of money has decreased in Balasor. He considers that the famine of 1866 has ceased to exercise any influence upon the price of food in his District. Sixty-six pounds of common husked rice for two shillings may be taken as the average retail price in the month of January. If the price should rise to only thirty-three pounds for two shillings in that month, preparations should at once be made for a famine. Thirty-three pounds for two shillings in January would, according to the average rise in prices as the year advances, decrease to twenty-five in March, sixteen in May, and probably before the end of July no rice would be left in the district. By that time it would be impossible to import anything by sea till the end of the monsoon. Mr. Collector Beames, who has studied the subject very carefully, reports to me that in the event of rice ever rising in January to the rate of thirty-three pounds for the rupee, the higher authorities should be warned of the approach of famine. He believes the whole moral of the terrible calamity of 1866 is, to 'get rice into Orissa before the end of March if there is any serious tightness in January.' Among the non-agricultural classes, a hired labourer, with his wife and two children, cannot earn more than twelve shillings a month. Of this they have to spend, as nearly as possible, six shillings for rice when it is at sixty-six pounds for the rupee. The smallest amount that would sustain the working powers of such a family, is one hundred and twenty-three pounds of rice a month; and if it rose to the rate of thirty-three pounds for two shillings, two-thirds of their income would go for the single item of rice alone, calculating

that they only ate enough to keep them alive. When rice rises to twenty-five pounds for the rupee, the non-cultivating classes have to begin to do without it. They would naturally betake themselves to split-peas and other pulses. But, unfortunately, in Balasor District, these crops are scarcely grown. The whole land is under rice, and if rice fails, everything fails.

The agricultural classes would be a little better off, as they would start with a store of grain, and be able to prolong the struggle by the sale of their cattle. They would not begin to die till the rains set in. The District depends almost entirely upon its winter rice crop (Sárad). The autumn crop is insignificant where it is grown at all, and in some Fiscal Divisions it is unknown. It could nowhere make up for the loss of the winter harvest. The means of importation at the disposal of the district consist of the Orissa trunk road and the seaports. The former is metalled and bridged, except at the larger rivers, which are supplied with good ferry-boats. But the cost of the long land transit is very great. The river ports are five in number, namely, Balasor, Churáman, Chhánuyá, Sárathá, Laichanpur, and Subanrekhá, for which see Notification of the Government of Bengal, No. 621, dated 30th March 1858. I append a Comparative Statement of their trade to this Account. But none of them are accessible during the southern monsoon, the very season in which a famine would reach its maximum intensity. Hence the imperative duty of the officer in charge of the district, to keep his eye upon the harvests and the state of the markets, and to give timely notice to the higher authorities before the ports are closed in March. It is vain to expect any relief from inland by means of the rivers. They issue from countries which, in times of scarcity, are even worse off than Balasor.

Administrative History.—The District of Balasor was acquired, with the rest of Orissa, in 1803. The early details of its jurisdiction and administrative changes are given at the beginning of this Statistical Account. At first it formed a mere subdivision of Cattack, and very little was spent upon it. The early records have been destroyed, but, so far as I can learn, the separate expenditure on the Civil Administration of Balasor in 1864, was £77, 18s. In 1860-61, the revenue amounted to £58,465, and the expenditure to £44,071. The Budget for 1870-71 estimates the total revenue at £59,126, and the charges for Civil Administration, at £48,061. These figures represent the income and expenditure after the elimination of transfer accounts. The increase in the cost of Administration is due partly to Public Works, and partly to the re-organization of the police in 1861.

The Land Tax amounted in 1830 to £29,321; in 1850 to £40,480; in 1870-71 to £41,911. The subdivision of property has gone on rapidly under British rule. In 1826 the District was divided into 677 separate estates; in 1870-71 they had more than doubled, the number being 1486. Not only have estates become smaller, but the number of registered proprietors or coparceners on each estate has greatly increased. Thus, in 1828, the number of registered proprietors was 863; in 1870-71 their number was 4570. In 1828 the average revenue paid by each separate estate was £46; in 1870-71 it is £28. Again, in 1828 each registered proprietor was a man of importance, and paid £36 of Government rental. But the subdivision of estates has now reached such a point, that in spite of several vast estates in the hands of Bengalis, the average Government rental paid by each proprietor is only £9 per annum, and among the mass of native Uriyá landholders it is much less.

The amount of protection to person and property has steadily increased. In 1804 there was but one permanent officer, and there were only three courts of any sort for the whole District. In 1850 there were eight courts, and one covenanted officer; in 1862, nine courts; and in 1869-70, thirteen, with three covenanted officers. The latter generally consist of (1) a Magistrate and Collector at Balasor; (2) a Joint or Assistant-Magistrate and Deputy-Collector at Balasor; and (3) an Assistant-Magistrate and Deputy-Collector in charge of the subdivision of Bhadrakh. In 1824, the total cost of the district police, officers and men, amounted to £444; in 1840 to £1584; in 1860 to £1442. They now consist of three bodies,—the regular force, the municipal police, and the village watch. In 1868 the regular force numbered three European officers, 133 native officers, and 672 footmen. The average pay of the English officers is £400 per annum; of the native officers, £25, 16s. 6d.; and of the footmen, £7, 12s. 6d. The aggregate strength of all ranks was 808, and its total cost £10,252. The police department estimates the area of the District at 3065 square miles, and the population at 485,113, allowing one policeman to 3·08 square miles, or to every 607 inhabitants. The cost of protection amounts to £3, 6s. 6d. per square mile, and fivepence per head of the population. During 1868 the police made 872 arrests, investigated 596 cognizable cases, and obtained 495 convictions. Among the 805 native officers and men were 122 Hindustánís, 2 Panjábís, and 5 Telingás. The rest are ranked as Bengalis in the police returns. The municipal police consists of 4 native officers, with an average pay of £12 per annum, and 30 footmen on £7, 4s. a year. The village watch numbered in 1840, 1914; in 1860, 2745; in 1868, 2219. Their esti-

mated pay in money and lands in 1868 was £2734. This is equal to a charge of seventeen shillings and tenpence per square mile, or about five farthings per head of the population. Each rural watchman has on an average four villages under his charge, containing a total of thirty-six houses, with 218 inhabitants. These calculations are based upon the police estimates of the area at 3065 square miles, and the population at 485,113. The fiscal area, after recent transfers, is 2041 square miles. Including, therefore, the regular force, the municipal police, and the village watch, the police of all ranks amount to 3058, maintained at a cost of £13,250 a year. For police purposes, the district is divided into nine stations, with sixty-two outposts. The cost of protecting person and property, therefore, in Balasor, is £4, 6s. 5d. per square mile of the police area, and a trifle under sevenpence per head of the population.

CRIMINAL CLASSES.—Crime is more frequent in Balasor than in Purí District. The average number in jail, for both Balasor and Bhadrakh, in 1868, was 144; of whom, however, only four were females; or about one person always in jail to every 3375, or one female to every 121,278 of the population. The entire number admitted in 1868, amounted to 549 males and 36 females, making a total of 585. The constant rate of sickness was 2·77 per cent. of the jail population, and the deaths 2·77 per cent. The great majority of the prisoners belong to the labouring and lowest agricultural classes, with a proportion, however, of the writer caste, and a much larger number of Muhammadans than is found in Purí or Cattack. At the same time, crime is much less frequent than in the more civilised parts of Bengal; nor is there any class of crime characteristic of the district. Drugging, with intent to rob, is sometimes practised on the great highway to Jagannáth, and Bráhmans have peculiar facilities as cooks for committing this offence. But it is a crime of the trunk road rather than of the district. The cost of rations was £3, 2s. 6d. per head in 1867, and £2, 2s. 7d. in 1868. The total cost of jail establishment was 19s. 3d., and the gross cost of maintenance, including hospital charges, clothing, jail establishment, and repairs, was £5 a head in 1867, and £4, 10s. in 1868.

FISCAL DIVISIONS.—The District of Balasor is divided into seventy Fiscal Divisions, which, as a rule, are much smaller than those of Purí or Cattack. Many of them barely exceed five square miles; several of them are a little over three, and one of them is only 1·04 square miles. It must, therefore, be understood that the term fiscal division (parganá) has a much more limited meaning in Balasor than in other districts. The number of villages was returned at 3668 in

1842, and 9627 in 1870,—an indication of the tendency of proprietors who have subdivided their estates, to make as much as possible of their respective parts by setting up new villages or collections of homesteads on each separate fragment. It also explains the increase in the population which took place up to the famine year, amounting to nearly 12 per cent. of the total inhabitants in 1840. Assuming the population in 1865, the year before the famine, to be the normal condition of things, each of the 9627 villages would contain 76·5 persons; but estimating the population at what it was after the famine, each village would only average 50, or one-fourth of the average number in each village of Purí District. It is impossible too frequently to repeat the caution, that such terms as fiscal division and village represent a very different number of inhabitants in different districts, even of the same province. The minute subdivision of properties in Balasor has produced a corresponding splitting up of villages with a very small population in each. The following is a list of the fiscal divisions of Balasor, showing their total area, with the proportion of land under cultivation, capable of cultivation, and uncultivable; the names of the two chief towns or villages; the land revenue, and the population. They have been very carefully compiled, but must be received as approximations to the truth, rather than as absolutely trustworthy statistics. There is also a slight element of error in each, as I do not give fractions of acres :—

1. Ankura—area, 133·85 square miles, or 85,670 acres; 33,871 acres cultivated; 5,684 cultivable; 46,112 uncultivable; land revenue, £2616; population, 22,051; chief villages, Básdebpur and Karanjáriyá.
2. Ararupauya—area, 18·03 square miles, or 11,539 acres; 6,014 acres cultivated; 1190 cultivable; 4334 uncultivable; land revenue, £273; chief villages, Madhusúdanpur and Náráyanpur.
3. Armala—area, 10·54 square miles, or 6743 acres; 4429 cultivated; 178 cultivable; 2136 uncultivable; land revenue, £206; population, 5424; chief villages, Armalá and Somnáthpur.
4. Arso—area, 25·17 square miles, or 16,108 acres; 9412 acres cultivated; 374 cultivable; 6321 uncultivable; land revenue, £47; chief villages, Jaldá and Sárgán.
5. Balkhand—area, 65·34 square miles, or 41,820 acres; 19,462 acres cultivated; 2990 cultivable; 19,267 uncultivable; land revenue, £1189; population, 20,617; chief villages, Purúshattamapur and Bari.
6. Banahar—area, 11·49 square miles, or 7353 acres; 4775 cultivated; 107 cultivable; 2470 uncultivable; land revenue and population not given; chief villages, Depur and Rangapati.

7. BANCHAS—area, 30·54 square miles, or 19,543 acres; 12,473 acres cultivated; 466 cultivable; 6603 uncultivable; land revenue, £4574; population, 79,459; chief villages, Báragán and Jagannáthpur.
8. BASTA—area, 13·29 square miles, or 8503 acres; 4864 acres cultivated; 327 cultivable; 3412 uncultivable; land revenue, £320; population, 2715; chief villages, Bastá and Báhárdá.
9. BAUTRA—recently transferred from Cattack; details not given.
10. BHELORACHOR—area, 40·00 square miles, or 25,584 acres; chief villages, Kholrá and Jhár Pipal.
11. BHERA—area, 53·59 square miles, or 34,301 acres; 22,170 cultivated; 2364 cultivable; 9767 uncultivable; land revenue, £1674; population, 11,130; chief villages, Bindhá and Pánpur.
12. BHOGRAI—area, 48·73 square miles, or 31,189 acres; 8525 acres cultivated; 2230 cultivable; 20,433 uncultivable; land revenue, £1253; population, 13,467; chief villages, Deulá and Bartaná.
13. BISALKHAND—area, 42·68 square miles, or 27,318 acres; 16,845 acres cultivated; 958 cultivable; 9515 uncultivable; land revenue, £2; chief villages, Korái and Asmalá.
14. BAYANG—area, 88·05 square miles, or 56,352 acres; land revenue, £2297; population, 24,764; chief villages, Kothár and Súrjyapur.
15. CHHANUYA—area, 10·24 square miles, or 6554 acres; 488 acres cultivated; 3451 cultivable; 2614 uncultivable; land revenue, £78; population, 592; chief villages, Níldá and Chhená.
16. DARARACHAUR—area, 21·77 square miles, or 13,934 acres; 9531 acres cultivated; 369 cultivable; 4033 uncultivable; land revenue, £374, 10s.; population, 3486.
17. DASMALANG—area, 53·54, or 34,268 acres; 6474 cultivated; 802 cultivable; 26,992 uncultivable; land revenue, £313; population, 24,368; chief villages, Ransáhi and Hirágán.
18. DHAMNAGAR—area, 58·84 square miles, or 37,660 acres; 21,983 acres cultivated; 2615 cultivable; 13,061 uncultivable; land revenue, £1650; population not given; chief villages, Churákuti and Syámpur.
19. FATHABAD—area, 61·89, or 39,611 acres; land revenue, £178; other details not on record.
20. GANESWAR—area, 12·80 square miles, or 8191 acres; 3910 acres cultivated; 359 cultivable; 3921 uncultivable; chief villages, Chálunigán and Páikraná.
21. GARHPADA—area, 16·89 square miles, or 10,815 acres; 5658

acres cultivated; 844 cultivable; 4313 uncultivable; land revenue, £149; population, 3163; chief villages, Uriyásásan and Bhatkhandi.

22. JAJPUR—recently transferred to Cattack; details not given.

23. JALESWAR—area, 36·34 square miles, or 23,256 acres; land revenue, £1014; population, 3457; chief villages, Aruyá and Santiyá.

24. JAYAPUR—area, 21·6 square miles, or 13,481 acres; 8924 acres cultivated; 150 cultivable; 4406 uncultivable; chief villages, Panpaná and Soti.

25. KAEDA—area, 12·11 square miles, or 7754 acres; 4277 acres cultivated; 215 cultivable; 3261 uncultivable; chief villages, Anantapur and Káedá.

26. KAMARDACHAUR—area, 44·58 square miles, or 28,536 acres; 19,039 acres cultivated; 1054 cultivable; 8442 uncultivable; land revenue, £1603; population, 10,904; chief villages, Kasbá-Kamardá and Patiná.

27. KATSAHI—area, 13·81 square miles, or 8·841 acres; 4447 acres cultivated; 333 cultivable; 4060 uncultivable; land revenue, £317; population, 2277; chief villages, Tapandíha and Churmárá.

28. KAYAMA—recently transferred from Cattack; details not given.

29. KHEJURI—area, 18·90 square miles, or 12,097 acres; 7555 acres cultivated; 480 cultivable; 4061 uncultivable; land revenue, £497; population, 5015; chief villages, Barunsinh and Khantápárá.

30. KILA-AMBO—area, 5·67 square miles, or 3630 acres; 1641 acres cultivated; 187 cultivable; 1801 uncultivable; chief villages, Ambo and Tarbhá.

31. KILA AMBOHATA—area, 36·21 square miles, or 23,175 acres; 8924 acres cultivated; 506 cultivable; 13,744 uncultivable; chief villages, Kopári and Haripur.

32. KILA MANGALPUR—area, 10·59 square miles, or 6779 acres; 3309 acres cultivated; 120 cultivable; 3349 uncultivable; land revenue, £103; population not given; chief villages, Gopínáthpur and Mangalpur.

33. KILA PATNA—area, 7·98 square miles, or 5107 acres; 2321 acres cultivated; 134 cultivable; 2651 uncultivable; land revenue, £48; population not given; chief villages, Balanga and Chhatrá.

34. KILA TALMUNDA—area, 19·70 square miles, or 12,610 acres; 7356 acres cultivated; 214 acres cultivable; 5040 uncultivable; chief villages, Mahamuhán and Korái.

35. KISMAT ANKURA—area, 2·34 square miles, or 1495 acres; 904 acres cultivated; 16 cultivable; 575 uncultivable; details about land revenue and population not given; chief villages, Gur and Suyán.
36. KISMAT KATSAI—area, 5·51 square miles, or 3530 acres; 1814 acres cultivated; 142 cultivable; 1572 uncultivable; land revenue, £248; population not given; chief villages, Kasbá Kumári and Báliyápál.
37. KISMAT NAPO—area, 1·04 square miles; land revenue, £68; population and name of chief villages not given.
38. KODINDA—recently transferred from Cattack; details wanting.
39. KUNARDACHAUR—area, 22·89 square miles, or 14,653 acres; 8358 acres cultivated; 450 cultivable; 5817 uncultivable; land revenue, £325; population, 6065; chief villages, Madhupur and Jágái.
40. KUNDI—area, 12·51 square miles, or 8009 acres; land revenue, £81; population, 1204; chief villages, Kundi and Gandardá.
41. KURAI—area, 9·13 square miles, or 5841 acres; 3607 acres cultivated; 85 cultivable; 2149 uncultivable; land revenue, £385; chief villages, Kurái and Bángariyá.
42. LAKRAJIT—area, 8·35 square miles, or 5347 acres; 3085 acres cultivated; 138 cultivable; 2123 uncultivable; chief villages, Golangá and Gobindapur.
43. MANJURI—area 11·33 square miles, or 7249 acres; other details wanting.
44. MATKADNAGAR—recently transferred from Cattack; details wanting.
45. MATKADABAD—recently transferred from Cattack; details wanting.
46. MUKHRA—area, 13·20 square miles, or 8445 acres; 4309 acres cultivated; 533 cultivable; 3603 uncultivable; land revenue, £287; population, 2451; chief villages, Gobindapur and Nuyápári.
47. MULGAON—area, 12·50 square miles, or 7998 acres; 4764 cultivated; 531 cultivable; 2703 uncultivated; land revenue, £280; population, 2102; chief villages, Dhárá and Gurdá.
48. MULDACHOR—area, 6·42 square miles, or 4112 acres; 2810 acres cultivated; 87 cultivable; 1214 uncultivable; land revenue, £101; population, 430; chief villages, Jámálpur and Kundlha.
49. NANGALESWAR—area, 11·72 square miles, or 9425 acres; 7321 acres cultivated; 162 cultivable; 1942 uncultivable; land revenue, £316; population, 2507; chief villages, Nángaleswar and Putrá.

50. NAPOCHOR—area, 35·31 square miles, or 22,599 acres; land revenue, £1102.
51. NUNKHAND—area, 30·66 square miles, or 19,628 acres; 11,062 acres cultivated; 403 cultivable; 8163 uncultivable; land revenue, £508; population, 5071; chief villages, Nuyápur and Sásan.
52. PANCHMALANG—area, 8·62 square miles, or 5520 acres; 933 acres cultivated; 67 cultivable; 4519 uncultivable; chief villages, Sáhapur and Khárá.
53. PHULWAR—area, 3·83 square miles, or 2452 acres; land revenue, £112; population, 872; chief villages, Chásákhand and Kálípur.
54. RADIYA-ORGARA—area, 91·08 square miles, or 58,292 acres; 30,598 acres cultivated; 4185 cultivable; 23,509 uncultivable; land revenue, £1654; population, 32,669; chief villages, Bhadrakh and Bálo.
55. RAUTARA—area, 13·21 square miles, or 8455 acres; 1706 acres cultivated; 2740 cultivable; 4009 uncultivable; land revenue, £166; population, 1439; chief villages, Sárgán and Sinthiá.
56. REMUNA—area, 20·12 square miles, or 12,882 acres; 6629 acres cultivated; 534 cultivable; 5718 uncultivable; land revenue, £525; population, 12,005; chief villages, Rudrapur and Athántrá.
57. SHAHBANDAR—area, 10·97 square miles, or 7024 acres; 2581 acres cultivated; 628 cultivable; 3814 uncultivable; population, 41,454; chief villages, Annabiratti and Bishanpur.
58. SHAHJAHANABAD—area, 5·13 square miles, or 3289 acres; 2079 acres cultivated; 94 cultivable; 1115 uncultivable; chief villages, Sháhjahánábád and Sálanpur.
59. SAHIBNAGAR—recently transferred from Cattack; details wanting.
60. SARATHACHAUR—area, 4·08 square miles, or 2612 acres; 1665 acres cultivated; 87 cultivable; 860 uncultivable; land revenue, £61; population, 4775; chief villages, Gotigariá and Chhatrá.
61. SARHAR—area, 27·72 square miles, or 17,742 acres; 9632 acres cultivated; 394 cultivable; 7716 uncultivable; chief villages, Machhadá and Sáoriyá.
62. SATMALANG—area 78·73 square miles, or 50,389 acres; 7493 cultivated; 3958 cultivable; 38,938 uncultivable; chief villages, Jámkundá and Ratái.
63. SEHARI—area, 3·15 square miles, or 2018 acres; land revenue, £87; population, 1115; chief villages, Bishnupur and Sehári.
64. SENAOT—area, 108·39 square miles, or 69,368 acres; land revenue, £449; population, 1181; chief villages, Dolsái and Ordá.
65. SINGARA—recently transferred from Cattack; details wanting.

66. Soso—area, 66·87 square miles, or 42,803 acres; 25,009 acres cultivated; 1723 cultivable; 16,070 uncultivable; land revenue, £877; population, 15,857; chief villages, Námi and Bárhát.
67. SUNHAT—area, 30·60 square miles, or 19,587 acres; 8826 acres cultivated; 1315 cultivable; 9446 uncultivable; land revenue, £425; chief towns, Balasor and Dámodarpur.
68. TALSABANGA—area, 24·28 square miles, or 15,538 acres; details of land cultivated, etc., not received; land revenue, £4617; population, 38,802; chief villages, Urangi and Padábargán.
69. TAPPA-MALINCHA—area, 13·86 square miles, or 8873 acres; 5388 acres cultivated; 160 cultivable; 3324 uncultivable; chief villages, Málincha and Goliyá.
70. TAPPA-PURSANDA—area, 55·17 square miles, or 35,312 acres; 20,395 acres cultivated; 1213 cultivable; 13,703 uncultivable; land revenue, £600; population, 5871; chief villages, Pursanda and Bantá.

CULTIVATED AREA.—The foregoing list of Fiscal Divisions must be received with caution. They refer to about a quarter of a century ago, and since then there is reason to believe that cultivation has greatly increased. The Collector estimates the total area in round numbers at 1,200,000 acres. Of this, 566,000 are under cultivation, and 544,000 are uncultivable. There remain, therefore, only 90,000 acres capable of cultivation not under tillage, or 7·5 per cent. of the whole. Roughly speaking, one-half of the district is under tillage, and one-half is incapable of tillage. No statistics exist as to the comparative area under different crops. The truth is, that the whole cultivated part of the district is one sheet of rice. The Collector believes that the proportion of other crops to this staple does not exceed one acre in 1000. It will be observed that in estimating the district to be 1,200,000 acres, the Collector assumes its area to be 1875 square miles, or 170 miles less than its actual size after the recent transfers.

MEDICAL ASPECTS.—Rainfall in 1869, 49·77 inches, as returned by the Meteorological Reporter to Government; average rainfall during ten years, 68·45 inches. Average temperature for the five years ending 1866, as reported by the Medical Officer—January, 85°; February, 89°; March, 93°; April, 96°; May, 98°; June, 92°; July, 88°; August, 88°; September, 73°; October, 74°; November, 73°; December, 78°. The hot season lasts from March to the middle of June, but is tempered by a cool sea-breeze from the south-west. From middle of June to end of September the weather is close and muggy; from October to February is the cold season, with a north-easterly wind, and cool mornings and evenings.

ENDEMICS.—Elephantiasis Arabum attacks about twenty-five per cent. of the population, and is always present in from fifteen to twenty per cent. of it. Specifically it is the Bucnemia tropica, a local hypertrophy of the cellular structure, attacking the whole body, but more particularly the depending parts and lower extremities. The Civil Surgeon reports that the disease is neither hereditary nor contagious, but when once fairly established, generally lasts through life. No statistics exist to show in what proportion it attacks the two sexes, or different ages. But the Civil Surgeon believes that Dr. Fox's general statistics hold good in Balasor, namely, seventy-five per cent. males, twenty-five per cent. females, and is most frequent between the ages of twenty-five and fifty. The fundamental cause of the disease appears to be the unstimulating character of the national diet. It chiefly attacks the poor, who live all their lives on a daily mess of rice, which, after boiling, is allowed to stand for twenty-four hours in water, until fermentation has slightly set in. To this sour mass a little salt is added, and the Civil Surgeon pronounces it to be unwholesome as an article of human food. Yet this is the invariable diet of the Uriyá peasant. Europeans are seldom affected. Another cause appears to be the deleterious water; but the theory of its injurious qualities arising from its being impregnated with salt is not, so far as I can learn, well founded. On the contrary, the Balasor peasant is particularly sensitive with regard to any saline ingredients in his drinking-water. The labourers who go out to work on the road between the town and the coast, insist on a water-carrier being allowed to each little gang, so that they may be supplied with the pure fluid from beyond the influence of the sea. It is an unquestionable fact, however, that the Balasor peasant drinks all his life from wells and tanks charged with organic impurities. The Civil Surgeon reports that twenty per cent. of the people labour under hydrocele. Goitre is met with but rarely. Fever of a low malarious type is everywhere prevalent, and especially so in the south-east corner of the District, at the mouth of the Dhámrá, which is about as unhealthy a locality as can be found in Bengal. From August to October a low remittent form of fever prevails. Ague and rheumatic affections, colds and sore throats, with the loss of voice, follow from November to February, during the continuance of the north-east monsoon. Syphilis is rife in all its worst forms, and the Civil Surgeon reports that as many as forty per cent. of the population are victims to it. Cutaneous diseases abound in Balasor, as they do among all rice-eating peoples. Till lately no attempt has been made at sanitation. Balasor City contains no fewer than 11,000 tanks, not one of which can be said to be in a wholesome state. Their banks are the

receptacle of every sort of filth, fluid and solid. The one object of the Uriyá's life is ceremonial purity, and he reconciles this in a surprising degree with foul drinking-water, and putrid dirt heaps at his door. The Civil Surgeon reports that the first organized efforts at sanitation have been made under the present magistrate, Mr. Beames. Tanks have been cleared out, drains opened, and conservancy rules rigidly enforced. In spite of the above-mentioned endemics, the rural population is not on the whole unhealthy. They carry about their swollen legs with apparent ease, and as regards bodily vigour, contrast favourably with the peasantry of the wet districts in Lower Bengal. The truth is, that throughout all deltas the standard of health is very low.

EPIDEMICS.—Among these scourges, cholera stands first. In 1853, it prevailed during the whole of April or May, working its way steadily from village to village, till there was not a hamlet which escaped it, and very few in which the mortality fell short of ten to twelve per cent. The whole District was panic-stricken. The villagers fled from their homes, leaving behind the dying and the dead. Another terrible visitation occurred in 1866—the famine year. It was worst in the months of March, April, June, and September. Of the little jail community, averaging 100 persons, 88 were attacked, and 35 died. Cholera annually makes its appearance along the trunk road, along with the great stream of pilgrims. This subject, however, has already been treated of in the Statistical Account of Purí. The Balasor people believe that cholera is directly communicable; and the Civil Surgeon gives the following authenticated instance:—A tradesman left his village to do some business in the adjacent country. At the time of his departure, there was neither cholera nor any unusual sickness in his own village, but the place to which he went was being ravaged by the disease. On his way back he suffered a little from diarrhœa. Within six hours after he returned, he was attacked with cholera, and died. The same day the disease made its appearance among his neighbours, and numbers of the villagers, especially those who lived close to him, perished.

CATTLE DISEASES are excessively prevalent, and are of three kinds. (1.) Basanta, called small-pox by the Civil Surgeon; Guti by the natives, to distinguish it from human small-pox. It is identified by the Cattle Plague Commissioners now on circuit (1870) as a true form of rinderpest. It appears in its severest form in winter, and lasts for about two months, in November and December, occasionally, however, continuing till May. It begins with a high fever for two days, followed by a characteristic eruption all over the body. The animal lies

still, droops its ears, and occasionally flaps them, refuses food, salivates freely, and coughs. During the febrile stage thirst is very urgent, but it afterwards abates. This state of things goes on for four or five days in the severer cases, when a sharp diarrhœa sets in, of a putrid odour, and death releases the sufferer. If the animal survives the sixth day, however, it generally recovers. Of the animals attacked, thirty-five per cent. die in average seasons, but the mortality often rises to eighty or eighty-five per cent. The disease is highly communicable, and is said to attack but once in a lifetime. (2.) Paschimá, a severer and more rapidly fatal form of basanta, in which there is a determination internally, and not to the skin. The death-rate in both these diseases is very much higher among buffaloes than among cows. (3.) Khurá or Phátuá, like the two foregoing, is endemic and contagious. It occurs, however, only in winter and the early part of the rains, *i.e.*, during the months of December and January, and in June. It attacks the frog of the hoof, sometimes one, sometimes two, occasionally the whole four. The principal symptoms are as follow:—The animal first has a sore mouth, and refuses food for two days. After two days the mouth gets better, and the animal eats a little. Lameness now sets in, and the owner's attention is thus drawn to the complaint. A disease process goes on in the hoof, which soon becomes maggoty, and sometimes drops off. In the severer cases the lips and tongue become swollen, and the latter looks raw and sore. Saliva dribbles in great quantities from the mouth, the animal wastes to a skeleton, and apparently dies of exhaustion. Death generally occurs within fifteen or twenty days from the first symptoms, the rate of mortality being, in ordinary seasons, from ten to fifteen per cent. of the animals attacked. It is said to rise sometimes to sixty. If the animal survives this period, and is well cared for, a gradual recovery takes place.

Fairs and Religious Gatherings.—Balasor being the district of Orissa most distant from Jagannáth, the pilgrim stream does not appear to be such an active cause of disease. But the Civil Surgeon reports that all the evidence before him points to the conclusion, that the pilgrims do import cholera. Balasor, however, has several important shrines of its own. The first of these, Jájpur, recently transferred from Cattack, is visited by the Jagannáth pilgrims, both in coming and going. One visit is imperative, in order to perform the funeral rites of their ancestors in the City of Sacrifice. Jájpur is also the scene of an annual local fair, in March, held in honour of the Sacred River. The fair lasts three days, and is attended by 10,000 or 12,000 persons. From £500 to £600 worth of goods are sold, among which the black stoneware called *mungi* deserves

special notice. It consists of platters and bowls cut out of a jet-black stone highly polished like marble. An inferior class of black stoneware is excavated from the rocks of the neighbouring Nílgiri hills, and sold in great quantities at the Jájpur fair. Another of these religious gatherings is held at Remuná, about five miles west of the town of Balasor. A fair in honour of Kshíríchorá Gopínáth, a form of Krishna, is held here in February; it lasts thirteen days, and is attended by about 10,000 to 12,000 persons. About £600 worth of goods are sold, consisting chiefly of toys, sweetmeats, fruits, vegetables, country cloth, etc. The temple of the god is an unsightly stone edifice, and is made more so by prurient sculptures. It is a favourite resort of the masses during the months of February, April, and November. A third fair is held at Khirang, a place about ten miles south-east of Balasor, and near the sea-coast, in honour of Mahádeva, the All-Destroyer. It lasts for three days, and is attended by about 8000 persons, who buy and sell wares to the extent of about £400. There are four other small gatherings held during the year in honour of Siva. They are of little importance, and last only a single night.

The Indigenous Drugs found in the District, and forming the greater part of the pharmacopœia of the native practitioner or kabiráj, are as follows:—Gulancha, a febrifuge; Nágeswar, an antispasmodic; Muthá, an antispasmodic and febrifuge; Sunti (dry ginger), an antispasmodic; Harirá, a febrifuge; Báhárá, a febrifuge; Bháliyá, a remedy for leprosy; Jíyalá, a febrifuge; Dhuturá (stramonium); Kaniká (croton seed); Bhárgavi, a febrifuge; Bansalochan, a tonic; Gandhabene, an astringent; Chákundá seed, a detergent, much used in ringworms; Methi, a tonic; Pán Mahuri (aniseed); Hálim, an anodyne; Deb-dárú, a febrifuge; Dhaniyá (coriander); Gánjá (Indian hemp); Satábari, a tonic; Ankránti, a febrifuge; Sálpani, a febrifuge; Kushtapani, a febrifuge; Nabákuri, a febrifuge; Bel (Ogle Marmelos); Gambhári, a febrifuge; Hánripurá, a febrifuge; Sál Chiretá root, a vesicant and counter-irritant; Pátuli, a febrifuge; Agiyábát, a febrifuge; Gokhorá, a febrifuge and expectorant; Tihiri, a purgative; Tálmuli, a tonic; Sunáriyá bark, a purgative; Dulubhá, a febrifuge; Sulpá, a febrifuge; Gandhasunti, an antispasmodic; Ghorábach, an astringent; Gandáli, an anodyne and an astringent; Nárábábli, an astringent and emulcent; Dengábheji, a febrifuge and an expectorant; Atusi and Káládáná, a safe and excellent purgative. The only mineral found in the district, and used medicinally by the native practitioner, is iron. It first undergoes several pharmaceutical processes. The native practitioner is essentially an herbalist, and most of his potions are administered in the form of infusion or decoction. He seldom prescribes powders or pills. Surgery

and chemistry are not known to or practised by him. The study of anatomy is equally unknown, and obstetric medicine is a speciality restricted to uneducated midwives. According to the Civil Surgeon, the native practitioner knows only a rude and barbarous eclecticism. He learns little from experience, investigation, or practical research. All is one unvarying sameness. Every ailment has its formal specifics, from which there is no deviation in orthodox practice, save the option between two or more of the recipes given in his text-book for the same description of symptoms. It must be observed, however, that these strictures have special reference to the degenerate and uneducated native practitioners of Balasor.

SUDIVISIONAL ADMINISTRATION.—Balasor has but one subdivision, Bhadrakh, whose headquarters are pleasantly situated on the Cattack high road. Bhadrakh is generally managed by a single assistant magistrate, and, unlike Khurdhá in Purí, forms an integral part of the District, which it resembles in soil, natural features, and every other particular. It has therefore received no separate treatment in this Statistical Account.

TRADE STATISTICS.—The following is a statement of the internal and external trade of the Port of Balasor for the ten years 1869-70. For several of the years the return is defective, and information cannot be supplied, as no record exists in the Customs office. In 1860-61, imports (no records), exports £4567; in 1861-62, imports £5824, exports £9931; 1862-63, imports (no record), exports £17,233; 1863-64, imports (no record), exports £40,098, tonnage 3754 tons; 1864-65, imports (no record), exports £72,525; 1865-66, imports £6858, tonnage 6757 tons, exports £27,010, tonnage 9266 tons; 1866-67, imports £15,362, tonnage 2144 tons, exports £8067, tonnage 3339 tons; 1867-68, imports £14,532, tonnage 1257 tons, exports £6122; 1868-69, imports £19,371, tonnage 2378 tons, exports £12,118; 1869-70, imports £28,357, tonnage 9072 tons, exports £27,923, tonnage 9064 tons. The trade of the minor ports of Balasor is as follows—the figures representing the average of the three years previous to 1870:—Dhámrá—imports £8963, exports £1751; Chhánuyá—imports £1, 4s., exports £1161; Sárathá—imports *nil*, exports £84; Churáman—imports £388, exports £167; Laichanpur—imports £1266, exports £934; Subanrekhá—imports £52, exports £1405.

APPENDIX III.

STATISTICAL ACCOUNT OF THE TRIBUTARY STATES.

THE Tributary States form the mountainous background of Orissa. They lie between the Mahánadí delta and the interior table-land known as the Central Provinces, or from N. Lat. 19° 52′ 0″ to 22° 34′ 0″, and from E. Long. 83° 36′ 40″ to 87° 13′ 20″. Population, 961,355; area, 16,184 square miles. They were formerly eighteen in number, but are now reckoned as nineteen, namely—(1) Angul, (2) Athgarh, (3) Athmallik, (4) Bánki, (5) Barambá, (6) Bod, (7) Daspallá, (8) Dhenkánal, (9) Hindol, (10) Keunjhar, (11) Khandpárá, (12) Morbhanj, (13) Narsinhpur, (14) Nílgiri, (15) Nayágarh, (16) Pál Lahará, (17) Ranpur, (18) Tálcher, and (19) Tigariá. They are bounded on the north by the districts of Midnapur, Puruliá, and Sinhbhúm; on the west, by the States of Bonái, Bamrá, Rádhákol, Sonpur, and Patná; on the south, by Kaláhándi and Gdumsar; and on the east, by the districts of Purí, Cattack, and Balasor.

The chiefs administer civil and criminal justice under the control of the Superintendent of the Tributary States at Cattack. Heinous offences which require more than two years' imprisonment, and all capital cases, are sent to this officer, who also decides political causes and disputed successions. An appeal from his decision lies to the Government of Bengal. The Magistrates of Purí, Cattack, and Balasor are *ex officio* assistants to the Superintendent; but, with the exception of the Magistrate of Balasor, they do not ordinarily exercise criminal jurisdiction. The Superintendent has also a native assistant, who exercises the full powers of a magistrate, and who tries such cases as the Superintendent makes over to him. The States, during the minority of the Rájás or chiefs, or when for political reasons they are placed under attachment, are managed by the Superintendent through

a Government receiver (*Tahsíldár*). The jurisdiction of the Commissioner is defined by Regulation xi. of 1816, and Act xxi. of 1850.

Mountains.—The Tributary States are a succession of ranges rolling backwards towards Central India. They form, however, three water-sheds from south to north, with fine valleys between, down which pour the three great rivers of the interior table-land. The southernmost is the valley of the Mahánadí, at some places closely hemmed in by peaks on either side, and forming picturesque passes; at others spreading out into fertile plains, laden with rice, and watered by a thousand mountain streams. At the Barmúl Pass, the river winds round magnificently wooded hills, of from 1500 to 2500 feet high. Crags and peaks of a solitary wild beauty overhang its channel, which at one part is so narrow, that it rises seventy feet in time of flood. From the north bank of the Mahánadí the ranges tower into a fine water-shed, from 2000 to 2500 feet high, running north-west and south-east, and forming the boundary of the States of Narsinhpur and Barambá. On the other side they slope down upon the States of Hindol and Dhenkánal, supplying countless little feeders to the Bráhmaní, which occupies the second of the three valleys. From the north bank of this river the hills again roll back into magnificent ranges, running in the same general direction as before, but more confused and wilder, till they rise into the Keunjhar water-shed, with peaks from 2500 to 3500 feet high, culminating in Malayagiri, 3895 feet high, in the State of Pál Lahará. This water-shed, in turn, slopes down into the third valley,—that of the Baitaraní, from whose northern bank rise the almost unexplored mountains of Morbhanj, heaped upon each other in noble masses of rock, from 3000 to nearly 4000 feet high, sending countless tributaries to the Baitaraní on the south, and pouring down the Burábalang, with the feeders of the Sabanrekhá, on the north. The peaks are densely wooded to the summit, and, except at the regular passes, are inaccessible to beasts of burden. The intermediate valleys yield rich crops in return for negligent cultivation; and a vast quantity of land might be reclaimed on their outskirts and lower slopes. The principal peaks are fifteen in number, as follows:—(1.) Malayagiri, in the State of Pál Lahará, in Lat. 21° 22′ 20″; Long. 85° 18′ 41″; height, 3895 feet. (2.) Meghásaní, literally the Seat of Clouds, in Morbhanj, in Lat. 21° 37′ 58″; Long. 86° 23′ 30″; height, 3824 feet. (3.) Gandha Mádan, in Keunjhar, in Lat. 21° 38′ 12″; Long. 85° 32′ 56″; height, 3479 feet. (4.) Thákuráni, in Keunjhar, in Lat. 22° 6′ 5″; Long. 85° 28′ 30″; height, 3003 feet. (5.) Pánch Dhar, at Athmallik, in Lat. 20° 41′ 28″; Long. 84°43′ 36″; height, 2948 feet. (6.) Tomák, on the boundary of Keunjhar and Sukindá, in Lat. 21° 5′ 35″; Long. 85° 57′ 38″; height, 2577 feet. (7.) Goáldeo,

in Daspallá, in Lat. 20° 31′ 5″; Long. 84° 52′ 43″; height, 2546 feet. (8.) Suliyá, in Nayágarh, in Lat. 20° 6′ 23″; Long. 85° 4′ 0″; height, 2239 feet. (9.) Kopilás, on the boundary of Athgarh and Dhenkánal, in Lat. 20° 40′ 40″; Long. 85° 48′ 53″; height, 2098 feet. This hill takes its name from that of a temple which is situated near its top, and which in February is visited by about 10,000 pilgrims, when a large fair is held, and trade to a considerable extent is carried on. At the top of the hill there is table-land, which might be made a very pleasant place of residence during the hot months. (10.) Bánkomundí, in Bod, in Lat. 20° 42′ 24″; Long. 84° 20′ 18″; height, 2080 feet. (11.) The Kanaká range, on the boundary of Narsinhpur and Hindol. The highest peak is in the latter State, in Lat. 20° 36′ 45″; Long. 85° 11′ 7″; height, 2038 feet. (12.) Bághmári, on the boundary of Morbhanj, and Sinhbhúm, in Lat. 22° 29′ 3″; Long. 26° 9′ 27″; height, 1997 feet. (13.) Tangári, in Angul, in Lat. 20° 52′ 48″; Long. 84° 52′ 50″; height, 1952 feet. (14.) Siánangá, in Bod, in Lat. 20° 26′ 16″; Long. 83° 51′ 28″; height, 1917 feet. (15.) Sápuámundí, in Khandpárá, in Lat. 20° 19′ 28″; Long. 85° 5′ 21″; height, 1769 feet.

RIVERS.—The principal rivers are the Mahánadí, the Bráhmaní, the Baitaraní, and the Burábalang. The first enters the Tributary States of Orissa in Bod, forming the boundary between that State on the south, and Athmallik and Angul on the north, for forty-nine miles. It then divides Khandpárá and Bánki on the south, from Narsinhpur, Barambá, and Athgarh on the north. In the last State, it debouches through a narrow gorge upon the Cattack delta. It is everywhere navigable throughout the Tributary States, and up to Sambalpur, by flat-bottomed boats of about twenty-five tons burden, and a considerable trade is carried on. Precious stones of different kinds are found in its bed. The river affords valuable facilities for navigation, but for the numerous sandbanks in its channel. The boatmen carry rakes and hoes, with which they clear a narrow passage just sufficient to let their craft pass. Where rocks impede the navigation, there is plenty of depth on either side; and a little blasting would enlarge the water-way, and thus lessen the force of the rapids. When full, it is a magnificent river, varying from one to two miles in breadth, and of great depth. It is liable to heavy floods, which have been fully described in my work on Orissa, where a comprehensive account of the Mahánadí will also be found. Its chief tributaries in the Tributary States, are, on its north bank, the Sápuá in Athgarh, and the Dandátapá and Máno in Athmallik; on its south bank, the Kusumí and Kamáí in Khandpárá, with the Jorámu, Hinámandá, Gánduní, Bolát, Sálkí Bágh, Maríní, and Tel. This last stream divides the Orissa Tributary States from

those in the Central Provinces, and forms the boundary between the States of Bod and Sonpur.

The BRAHMANI enters the Tributary State of Tálcher, and passes through it and Dhenkánal into the Cattack District. It is navigable for a few months of the year to four miles below Tálcher, where there are some dangerous rocks, which might, however, be easily blasted. Common jasper abounds, along with other precious stones, in the bed of the river.

The BAITARANI RIVER rises in the State of Keunjhar, and forms the boundary between that State and Morbhanj for forty miles. In the dry season it is navigable by small boats; but with difficulty as far as Anandapur, a large village on its south bank, in Lat. 21° 13′ 0″, and Long. 86° 11′ 0″. A considerable trade is carried on at this place; the rural and forest produce brought by land from the south-west being bartered for salt, carried by boats from the coast.

The BURABALANG rises in the State of Morbhanj, and has been fully described in the Statistical Account of Balasor; which also see for an account of the Sálandí and Subanrekhá.

No important instances of alluvion or diluvion are known, nor of any changes in the courses of the above rivers. The banks are generally abrupt, occasionally rising into fine heights, and the beds sandy, with the exception of that of the Baitaraní, which is rocky. Nor have any important islands been formed by the rivers within the Tributary States, but rocks and wooded cliffs have here and there been thrown up from the middle of the Baitaraní and the Mahánadí. The banks are generally buried in jungle, but in many places they might be turned into fertile fields. The Baitaraní is popularly rumoured to have a subterraneous passage, but in reality merely flows through two rocky clefts, called the Cow's Nostrils. The rivers form no lakes, and are far beyond tidal range. None of them are fordable during the rainy season, but in the dry season they are all so at certain parts of their course.

USES TO WHICH THE WATER IS PUT.—Three towns on the Mahánadí subsist by river traffic, namely, Baideswar in Bánki, and Padmábatí and Kantilo in Khandpárá. These communities carry salt, spices, cocoa-nuts, and brass utensils up to Sambalpur, in the Central Provinces, bringing thence, in exchange, cotton, wheat, oil-seeds, clarified butter, oil, molasses, iron, turmeric, tasar cloth, rice, etc. There are also several smaller towns on both sides of the Mahánadí, which carry on an extensive trade in timber, bamboos, oil-seeds, and other local produce. On the Bráhmaní, the only large villages are Baulpur and Bhuvan, in the State of Dhenkánal, with a thriving river traffic in resin, lac, oil-seeds, etc. There is but a single large village within the Tribu-

tary States on the Baitaraní, viz. Anandpur in Keunjhar, the trade of which is the same as that of the villages on the Bráhmaní.

IRRIGATION.—None of the non-navigable rivers or streams are applied as a motive power for turning mills, etc.; nor is the water of the larger rivers utilized for the purposes of irrigation, although the smaller streams are often dammed and embanked for the purpose. There is no regular system of storing water at an elevation from which it can be conducted to a distance; but it is often ladled on the fields by the ordinary native methods described in the Statistical Account of Purí District.

FISHERIES.—All the villages on the rivers are partly inhabited by fishermen, who form about five per cent. of the entire population along the banks, and one per cent. in the interior. The fisheries are of no great value. In Bánki, the rent realized from this source in 1869 was £38; in Athgarh, £17; in Nayágarh, £13, 10s.; in Khandpárá, £11, 14s.; and in Angul, only £3.

EMBANKMENTS.—With the exception of Bánki, which is directly under Government management, embankments on an extended scale are unknown within the Tributary States; nor do the Rájás possess sufficient capital for their construction.

MINERALS.—A coal-field exists in Tálcher. In 1841 an exploring party found coal in several places, extending over a tract of upwards of thirty miles. Further investigations were also made in 1855, and the results published in the Memoirs of the Geological Survey of India, vol. i. part i. It is also believed to exist in Angul, and along the banks of the Mahánadí. Limestone and building stone are procurable in almost all the States. Iron is found in Morbhanj, Keunjhar, Dhenkánal, Angul, Athmallik, Tálcher, and Pál Lahará, and a considerable trade in the metal is carried on. Gold dust is found, but to a very small extent, in the sands of a few streams in Keunjhar, Dhenkánal, and Pál Lahará. A black stone called Mungi is extensively quarried in Nílgiri, and manufactured into native plates and cups. Dhenkánal produces talc, and hot springs are found in Athmallik.

JUNGLE PRODUCTS.—The chief marketable timber of the Tributary States is Sál, the forest revenue of the single State of Angul being £35. The jungle yields an annual supply of resin, lac, tasar, bees-wax, dyes, fibres, such as siári, the fibre of a gigantic vine used for cordage; and Murgá (*Saserviera Zeylonica*). The following classes subsist by collecting and trading in jungle products:—(1.) The Khayrás, who collect and deal in catechu, and belong to the States of Dhenkánal, Keunjhar, Angul, Tálcher, and Athmallik. (2.) Lohárs, iron-smelters, living in Dhenkánal, Keunjhar, Tálcher, and Athmallik. (3.) Kandhs.

(4.) The Gands, residing in Keunjhar, Morbhanj, and Dhenkánal. (5.) Kols, who sell resin, lac, wax, etc., and live in Morbhanj, Keunjhar, and Pál Lahará. (6 and 7.) Juáns and Malhárs, who deal in honey and other jungle produce, and live chiefly on roots and leaves. They come from the States of Keunjhar and Dhenkánal. (8.) Bhúmijas, labourers from Keunjhar, Morbhanj, etc. And (9.) Kostiás, dealers in tasar.

Wild Beasts.—Among the larger sort of wild animals are the elephant, tiger, panther, hyena, bear, deer of several sorts, antelope, hog, bison, etc. Wild elephants infest the jungles of Morbhanj and Keunjhar, and in lesser numbers in Athmallik, Angul, and Dhenkánal. They do great damage to the crops, and occasionally trample down a barn, but very seldom destroy human life. Tigers exist everywhere, and annually carry away numbers of men and cattle. At the Mangarhghátí Pass, they killed upwards of 300 persons in three years. In the State of Bod eighty-six persons were devoured in 1869, and the Rájá was obliged to engage a huntsman from Sambalpur. In some States the tigers watch the villages, and seize any one who strays beyond their limits; but the Rájás seldom give rewards for their destruction. Some tribes, particularly the Kandhs, regard them with superstitious reverence, and will not kill them. Hundreds of people die every year from snake bites, but payments for serpent killing are unknown. Among the smaller sorts of game are hares, various sorts of wild fowl, wild geese, peacocks, partridges. Wild beast skins form an important article of traffic.

Population.—No regular census has ever been taken of the Tributary States. An estimate prepared by the Topographical Survey in 1860–62 gives the number of towns and villages at 6965, with a population, calculated at the rate of five and a half inhabitants to each house, of 961,355. A detailed statement of the estimated population of the different States will be given subsequently.

The principal races inhabiting the Tributary States are—(1.) the Uriyás, who form the most important and largest section of the population, and inhabit the valleys. The hill tribes consist of—(2.) the Kandhs, residing chiefly in the States of Bod, Kandhmáls, Daspallá, and Nayágarh. They are a simple race, fond of the chase, and capital hunters; easily managed by those who are accustomed to them, but very jealous of any interference with their rights in the soil of their native hills. (3.) Kols, in Morbhanj, Keunjhar, and Pál Lahará, a more turbulent people, sometimes very difficult to control, addicted to daring predatory enterprises, and much dreaded by the neighbouring peasants. (4.) Bhunás, otherwise spelt Bhuyás, who reside in Keunjhar and Morbhanj. This

tribe forms the most important portion of the inhabitants of Keunjhar, and are about ten thousand in number. They are a slightly built race of men, with an average height of only 5 feet 3 inches, and a very dark skin. They have lost their original language, and now speak Uriyá. As a rule, they are honest and truthful, but very tenacious of their land rights, although timid by nature, and easily oppressed individually. (5.) Juáns, residing in Keunjhar and Dhenkánal. (6.) Gands, living in Keunjhar, Morbhanj, and the Central Provinces, have also lost their own language. They are much fairer in the Tributary States than their tribesmen in the Central Provinces, and seem to have a strong mixture of Aryan blood. (7.) Malhárs living in Dhenkánal have no fixed abode, but lead a wandering life in the forest, lodging under trees, and subsisting by the sale of honey, wax, lac, resin, and other jungle products. (8.) Bhúmijas, living in Keunjhar, Morbhanj, and Dhenkánal. (9.) Sántáls, living in Keunjhar and Morbhanj. (10.) Savars. (11.) Domnás, living in the Kandh country. These last people act as priests to the Kandhs. When a Kandh is wounded or killed by a tiger, his whole family becomes outcaste. The Domná priest can, however, restore the family to its former social position, by taking away all the property in the house of the unfortunate man who had incurred the displeasure of the Kandh deities. The hill tribes have already been treated of in the main body of this volume. Each of them has a distinctive oath. A Kandh swears by touching muhwá fruit, or earth; a Kol, by touching cooked rice; a Juán, or Bhuná or Bhuyá, by touching a tiger skin, a white-ant hill, or a bamboo leaf; and a Domná, by touching cow dung. For minor tribes, see list of castes.

No immigration nor emigration to any extent goes on in the Tributary States.

Religion.—As in other parts of Orissa, the great mass of the inhabitants of the Tributary States are Hindus, with the aboriginal fetish element more or less distinctly preserved. The number of Musalmáns is very small, and consists of the descendants of those who took service as soldiers under the Rájás in the time of the Marhattás, when there was constant fighting between the various rival States. The Muhammadan religion does not make any progress among the people. In Athgarh there is a village called Chhagán Gobrá, and in Nílgiri one called Mitrapur, entirely inhabited by agricultural communities of native Christians. The principal places of pilgrimage in the Tributary States are Kopilás in Dhenkánal, Kusaleswar and Jotipur in Keunjhar, Mántir in Morbhanj, and Samakul in Nayágarh, all of which attract annual crowds of devotees. Some aboriginal tribes preserve their ancient rites intact.

Castes.—The list of castes numbers sixty-four. The most esteemed are—(1.) the Bráhmans, who follow the same occupations as the Bráhmans in other parts of Orissa. (2.) The so-called Kshattriyas, who are connections of the chiefs, and are supported by them. They are few in number, and generally rich. (3.) Karans, corresponding to the Káyasth caste of Bengal, chiefly employed as writers and clerks, few in number, and generally well off. Next to the Karans come the so-called Súdras, among whom the ten following are deemed respectable:—(1.) Khandáit, agriculturists, few, and tolerably rich. (2.) Chásá, agriculturists, numerous, poor. (3.) Baṛhái, carpenters, few in number, poor. (4.) Kamár, blacksmiths, few, poor. (5.) Guriá, confectioners, few, poor. (6.) Bhandári, barbers, few, poor. (7.) Baniá, betel-nut sellers and goldsmiths, few, but sometimes rich. (8.) Gaur, herdsmen, few, poor. (9.) Tambuli, betel-nut sellers, few, poor. (10.) Máli, gardeners, worshippers of Mahádeva, few, poor. The following nine castes are held in much lower esteem than the foregoing, but are within the pale of respectability:—(1.) Patrá, weavers and traders, few, rich. (2.) Pathuriá, stonemasons, few, poor. (3.) Thatári, braziers, numerous, poor. (4.) Chitrakar, painters, few, poor. (5.) Kansári, workers in brass, few, rich. (6.) Ráj, merchants, few, rich. (8.) Náyak, astrologers, few, rich. (9.) Barsud, agriculturists, numerous, poor. The following forty-one castes are utterly despised:—(1.) Tanti, weavers, few, poor. (2.) Kumbhár, makers of earthen pots, few, poor. (3.) Telí, oilmen, few, poor. (4.) Jogí, beggars, few, some poor, but many, as religious mendicants, are rich. (5.) Mátiá, labourers, few, poor. (6.) Keut, fishermen, few, poor. (7.) Thoriá, drivers of pack bullocks, few, rich. (8.) Parirá, horse-keepers, few, poor. (9.) Bhuná or Bhuyá, cultivators who live partly on jungle products, numerous, poor. (10.) Girgiriá, fishermen, few, poor. (11.) Douá, weavers, few, poor. (12.) Bhúmija, labourers, few, poor. (13.) Magadhá, herdsmen, few, poor. (14.) Batakásud, cultivators, numerous, poor. (15.) Korá, cultivators, numerous, poor. (16.) Lohár, iron-smelters, numerous, poor. (17.) Dumál, cultivators, numerous, poor. (18.) Tiar, fishermen, few, poor. (19.) Khayrá, dealers in catechu, few, poor. (20.) Jhará, gold-washers, few, poor. (21.) Dhobá, washermen. (22.) Sinkhálu, labourers, numerous, poor. (23.) Kurmi, labourers, numerous, poor. (24.) Bhuliá, weavers, numerous, rich. (25.) Sundi (Suri), spirit vendors, few, rich. (26.) Chamár, basketmakers, few, poor. (27.) Godrá, basketmakers, few, poor. (28.) Mochi, shoemakers, few, poor. (29.) Malhár, (30.) Kol, and (31.) Juán, aboriginal tribes who sell resin, lac, wax, honey, and other jungle products, and live partly by tillage, chiefly on roots. (32.) Kandh, hired labourers and poor cultivators. (33.) Hári, sweepers,

numerous, poor. (34.) Dom, sweepers, numerous, poor. (35.) Pán, labourers, numerous, poor. (36.) Kandrá, labourers, few, poor. (37.) Sántál, cultivators who partly live on jungle products, few, poor. (38.) Saura (Savar), labourers, numerous, poor. (39.) Tanalá, labourers, few, poor. (40.) Gand, a tribe of aborigines. (41.) Kelá, a wandering aboriginal gipsy-like tribe, few, poor.

CONDITION OF THE PEOPLE.—The peasant's food consists of boiled rice, pulse, vegetables, fish, and occasionally flesh. A prosperous cultivator lives on about fourteen shillings a month. His household expenses are eight shillings for rice, two for vegetables, one for salt, and three for firewood, oil, spices, and occasionally a little fish.

The dress of a well-to-do shopkeeper consists of a white cloth round the loins hanging down to the ankle (*dhoti*), and a white sheet or cloth thrown over the shoulders (*chádar*), worth altogether about four shillings. That of a peasant is a simple waistcloth, worth eighteenpence. A shopkeeper's furniture consists of a few blankets, carpets, mattresses, mats, and pillows, a wooden seat or two, and an instrument for husking rice (*dhenki*).

There are only six villages in the Tributary States containing more than 500 houses, namely—(1.) Kantilo, and (2.) Nijgarh in Khandpárá; the first containing 1113 houses with an estimated population of 6121, and the second 1121 houses with an estimated population of 6165. (3.) Nayápatná in Tigariá, with 512 houses and a population of 2816. (4.) Bághsámalgarh, and (5.) Chheliá in Morbhanj; the former with 500 houses and an estimated population of 2750, and the latter with 757 houses and a population of 4163. (6.) Garh in Dhenkánal, with 753 houses and a population of 4141.

ADMINISTRATION.—In 1805 the revenue paid to the British Government by the Tributary States amounted to £4555; in 1820 the same; in 1860–61 it had increased to £8286; and the Budget estimate for 1870–71 is £8388. The Rájás rule their territory pretty much according to their own idea of what is right; and even in the two States directly under our management, Bánki and Angul, land litigation is little known. In Bánki the number of rent-suits instituted under Act 10 of 1859 was 14 in 1861–62, 33 in 1862–63, 54 in 1866–67, and 28 in 1868–69. In Angul, during the same years, the number of cases were 29, 57, 37, and 28 respectively.

POLICE.—The Rájás do not maintain regular police stations, the duties being performed by the páiks, or cultivators holding on a tenure of military service. A regular force has been organized in the two States under Government management. Angul has one head station at Purnágarh, and four outposts at Tikarpárá, Maidharpur,

Balrámprasád, and Chhindipadá. In Bánki there is a head station at Chárchiká, with three outposts at Baideswar, Kalápathar, and Subarnapur. A police force is also maintained in the Kandhmáls, consisting of one head station at Bisipárá, and four out-stations at Khejurípárá, Kalábág, Nayápárá, and Argirkiá, to preserve order in that wild region.

The following is a detailed account of the different States, their area, revenue, crops, fairs, estimated population, etc. Each has its own Rájá, or chief, except the two under direct Government control.

ANGUL, bounded on the south by the river Mahánadí and the State of Narsinhpur; on the north by Tálcher and the State of Bamrá in the Central Provinces; on the east by Hindol; and on the west by Athmallik and Rádhákol. Area, 881 square miles. Estimated population, 39,488. Revenue, according to the Budget estimate for 1870–71, £3067. The State was confiscated in 1847, owing to the Rájá's continued disobedience of the orders of Government, and his attempt to wage war against the English. The revenues are collected, and the State generally managed, by a receiver (Tahsíldár). The members of the ex-Rájá's family enjoy pensions from Government. The State was originally in the possession of a Kandh named Ano, but the ancestors of the ex-Rájá having gained a footing in the country as traders, plotted against the Kandh prince, and seized his territory. It is for the most part jungle. Rice, sugar-cane, oil-seeds, cotton, and coarse cereals form the staple crops of the small cultivated portion. Droughts frequently destroy the crops, but there is scarcely any part of the State in danger of flood.

Tillage is conducted in two ways; and as these methods are common to the whole Tributary States, they may be described here once and for all. (1.) Rice cultivation in hollows and on low lands with a command of moisture. In the valleys, where the mountain rivulets can be utilized, the peasants throw a dam across the streams and store up the water. The lower levels thus secure a supply of moisture the whole year round, and the Wet Rice cultivation goes on throughout the twelve months. (2.) Upland or *Tailá* cultivation, upon newly cleared patches of land, and depending entirely on the local rainfall. The forest is cut down and burnt upon the spot, and the soil thus enriched with salts, yields abundant crops of early rice, oil-seeds, and cotton. At the end of four or five years such clearings are abandoned for new ones, and the land relapses into jungle. After years of rest, when a fresh growth of forest has sprung up, the trees and shrubs are again cut down and burnt on the spot; the whole process of clearing and cultivating for another period of five years being repeated *de novo*.

Prior to its confiscation there was no trade in Angul, and its Tribute amounted to only £165; but since then fairs have been established at seven places, attended by traders from Cattack and the neighbouring districts. The population is sparse, and lives almost entirely by agriculture. With the exception of the hilly southern part, the country is level, and only needs inhabitants to increase its value. The Bráhmaní runs within a mile of its north-eastern boundary, and might form a trade-route for the products of the State. Coal and iron are found. The largest village in Angul is Chhindipadá, in Lat. 21° 5′ 0″, Long. 84° 55′ 0″, containing 149 houses at the time of the Topographical Survey in 1860–62. There are also nine other villages, containing upwards of 100 houses each. The total number of villages is 345.

ATHGARH, bounded on the south by the Mahánadí; on the north by Dhenkánal; on the east by Tigariá; and on the west by Cattack District. Area, 168 square miles, containing 184 villages, with 3302 houses and an estimated population of 18,326 souls. It yields its Rájá an income of about £1494 a year, and pays £282 as tribute to Government. In ancient times it belonged to the kings of Orissa, one of whom married the sister of his prime minister, and presented the State of Athgarh to his brother-in-law, with the title of Rájá. The present ruler is the tenth in descent, and belongs to the writer caste (Káyasth). Athgarh is a low level country, and very subject to inundations. The only village containing upwards of 100 houses is Gobrá, in Lat. 20° 35′ 2″, Long. 85° 52′ 28″, with 159 houses. At the village of Chhagán, Lat. 20° 34′ 14″, Long. 85° 52′ 30″, there is a peasant colony of native Christians under the care of the Baptist Mission at Cattack. The village has a small chapel, and is prettily situated on a slight eminence, surrounded by well-cultivated rice fields. It has a population of 263, exclusively Christians, who are employed as agriculturists. Two other Christian hamlets adjoin it. The cultivation consists of rice, with an occasional crop of sugar-cane. The Rájá's residence is buried in bamboo thickets, planted as a defence against the Marhattá horse. The high road from Cattack to Sambalpur passes through the State.

ATHMALLIK is bounded on the south and west by the Mahánadí; on the east by Angul; and on the north by the State of Rádhákol, in the Central Provinces. Area, 730 square miles. Estimated population, 16,250. Yields a revenue of £800 a year to its chief, and pays a tribute to Government of £48. Has but one village containing more than 100 houses, viz. Kainta, with 127. The State is a dense jungle, with little cultivation, and no trade. A long range of hills covered with wood runs along its southern side, parallel with the Mahánadí. The crops consist of coarse rice and other inferior grains, with a few

f

oil-seeds. The chiefs of Athmallik have no legal claim to the title of Rájá. Their emblem of signature is a *Kadamba* flower.

BANKI, bounded on the north by the States of Athgarh, Tigariá, and Barambá; on the south and east by Purí District; and on the west by Khandpárá. Area, 150 square miles. Estimated population, 48,813. Paid an annual tribute of £443 to Government from 1805 till 1840, when it was confiscated, the Rájá having been convicted of murder, and imprisoned for life. Since that time the estate has been under direct Government management. In 1860–61 it yielded a revenue of £1333, which has now increased to £1996 (1870–71).

BARAMBA, bounded on the north by the Mahánadí; on the south by Nayágarh; on the east by Nayágarh and Daspallá; and on the west by Purí District. Area, 134 square miles, with 137 villages and 3958 houses. The population is variously estimated, at from 21,967 by the Topographical Survey in 1860–62, to 27,458 by a recent official return. The Rájá, in 1870, calculated the number of villages at 133, with 3748 houses and 20,604 inhabitants; but this is probably below the truth. The Mahánadí, on its southern boundary, affords water-carriage for the products of the State. Bi-weekly fairs are held at Mainábád, a small village of 48 houses, in Lat. 20° 26′ 30″, Long. 85° 20′ 28″; and at Banálipur, a village with 74 houses, in Lat. 20° 24′ 9″, Long. 85° 20′ 28″, where the usual common description of country products are brought for sale. Timber and bamboos are floated down the Mahánadí to Cattack and Purí. The largest villages are Gobirátpur, 276 houses, on the bank of the Mahánadí, in Lat. 20° 22′ 59″, Long. 85° 24′ 31″; and Barambá, 232 houses, in Lat. 20° 15′ 17″, Long. 85° 22′ 45″. The history of the State commences with a legend of a celebrated wrestler, to whom the Orissa monarch presented two villages. The hamlets were owned and inhabited by Kandhs, but the wrestler speedily drove out the aboriginal race; and gradually extending his territory at their expense, founded the State of Barambá. The present Rájá is the nineteenth in descent from the original chief. His emblem of signature is a dog metamorphosed into a lion—a heraldic monster that took his origin in a story belonging to the time of the first founder, when a dog assaulted a tiger. Tribute, £140; Rájá's income, £1200.

BOD, bounded for sixty-five miles on the north by the Mahánadí; on the east by the State of Daspallá; on the west by the Tel River; and on the south by the Kandh Hills. The latter are under British management, although once nominally feudatory to Bod. Area, including the Kandhmáls, 2064 square miles. Excluding this latter portion, respecting which no reliable statistics have yet been obtained, Bod contains 542 villages and 3349 houses, with an estimated population of

18,687. Many of the villages are deserted. The Rájá pays an annual tribute of £80 to Government, and enjoys an income of about £1000 a year. The Mahánadí and Tel offer facilities for water-carriage; but, with the exception of a small trade in Sál timber, none of the produce of the country is exported. Weekly markets are held at eight villages, for traffic in the usual simple commodities, such as coarse rice, oil-seeds, and jungle products. The only two towns in the State containing upwards of 100 houses, are Bod, with 300 houses, Lat. 20° 50′ 30″, Long. 84° 22′ 0″; and Jagatigarh, with 120 houses. Bod Proper is one of the most neglected of the Tributary States. The reigning family claims an uninterrupted descent of seventy generations from a Bráhman, who founded the petty principality about a thousand years ago. It was once much larger than at present; but powerful neighbours have from time to time wrested parts of it away.

As indicated above, the State is now divided into two parts—Bod Proper, and the Kandhmáls. The latter consist of a broken plateau intersected by ridges of low hills, the last refuge of the Kandh race. The villages are few in number, and divided from each other by rugged peaks and dense forests; but a regular system of government on the aboriginal plan is maintained, the hamlets being distributed into *mutas*, and each *muta* being under the supervision of a clan-chief. Throughout this wild tract, the Kandhs claim an indefeasible right in the soil. They assert that the whole of Bod, and all the neighbouring country, was once theirs, and that they have been gradually pushed back into the recesses of the hills by unscrupulous invaders. They deny that they ever acknowledged the rule of their oppressors, and consider themselves as wrongfully ousted, so that no length of time can bar their inalienable right to the soil. Mr. Ravenshaw, the Commissioner of Orissa (1871), whose minute acquaintance with the people makes him the highest living authority, writes to me that these Kandh legends of having been driven out from more fertile territories are probably true. The Kandhs say that they were pushed eastwards from Sableia, in Sambalpur, the ancient home of their race. The Kandhmáls, at any rate, were never more than nominally subject to the Bod Rájá, who was totally unable to control or coerce them. After the British Government discovered the frequency of human sacrifice among them (1836), it established an Agency to put a stop to the practice (Act xxi. of 1845), and the Bod Rájá gladly ceded the Kandhmáls to us for the better suppression of these inhuman rites. The people are a wild, impulsive race, but the Commissioner of Orissa reports that for years they have lived peaceably under our rule. They pay no rent, and we take no revenue whatever from them, but merely keep order and prevent

oppression by means of a Tahsíldár, supported by a strong force of police. This officer's principal duties are to prevent or to put a stop to blood-feuds, to adjust dangerous disputes, and to take cognizance of any serious crime. The Bod Rájá exercises no authority whatever in the Kandhmáls. Their chief product is turmeric, which is grown in large quantities. It is of an unusually fine quality, and is eagerly bought up by traders from the open country, who penetrate with their pack bullocks into the innermost recesses of the hills. For further particulars regarding the Kandhs, see my work on Orissa, and the Central Provinces Gazetteer (where they are spelt Khonds), pp. 25, 124, 196, 239, 251, 286, 393. Ed. 1870. Also Manual of Vizagapatam District, pp. 323-349.

DASPALLA is bounded for twenty-four miles on the north-east by the Mahánadí; on the east by Khandpárá; on the west by the Kandh Hills of Bod; and on the south by the State of Gumsar, in the Madras Presidency. It contains an area of 568 square miles, yields an annual income of about £2000 to its Rájá, and a tribute of £66 a year to Government. The Topographical Survey in 1860-62 estimated the number of villages at 365, with 6331 houses and 35,136 inhabitants. A Return officially prepared for me in 1870, gives the population at 43,920. In the same year the Rájá reported the villages at 376, with 6607 houses and 36,338 inhabitants. The Mahánadí here flows through the magnificent Barmúl Gorge in a channel of great depth, with special facilities for water-carriage. A large tract of Daspallá is inhabited by Kandhs, only nominally subject to the Rájá. Throughout the whole State, six villages contain over 100 houses:—(1.) Kunjabana, the Rájá's place of residence, 220 houses; Lat 20° 20′ 45″; Long. 84° 53′ 27″. (2.) Modiá Kandpatná, 278 houses; Lat. 20° 20′ 25″; Long. 84° 58′ 24″. (3.) Judum, 161 houses; Lat. 20° 31′ 28″; Long. 85° 0′ 14″. (4.) Belpadá, 148 houses; Lat. 20° 24′ 59″; Long. 85° 6′ 3″. (5.) Julindá, 137 houses; Lat. 20° 31′ 28″; Long. 84° 59′ 23″. (6.) Kamaládhár, 121 houses; Lat. 20° 30′ 32″; Long. 84° 56′ 30″.

Daspallá was founded about 500 years ago by a son of the Rájá of Bod. Since then, fourteen chiefs have reigned. The State is divided into two parts,—Daspallá proper, which composed the original principality; and Judum, formerly a part of Angul, but annexed to Daspallá by conquest. The family name of the chiefs is Bhanj, literally broken (also forest); and their emblem of signature a peacock, from a legend that the founder of the family sprang from a peafowl's egg.

DHENKANAL, bounded on the north by Keunjhar; on the south by Athgarh, Tigariá, and Hindol; on the east by Cattack District; and on the west by the Bráhmaní River, Tálcher, and Pál Lahará. Area,

1463 square miles. According to the Topographical Survey 1860–62, it contains 859 villages, with 127,411 inhabitants. The Mahárájá, in 1870, returned the villages at 961, with 26,226 houses and 144,255 inhabitants. The State yields an income of about £6000 a year to its chief, and an annual tribute of £509 to Government. It is a very valuable property, and excellently managed under the personal supervision of its ruler, on whom the British Government conferred the title of Mahárájá in 1869, as a reward for his moderation and justice towards his people, and his liberality in the famine of 1866. The Bráhmaní runs through the State, and forms a richly cultivated valley. There is, however, a great deal of waste land which might be brought under tillage. Iron abounds, but is worked on a very small scale. A petty trade in cochineal is also carried on. The four following towns consist of more than 200 houses:—(1.) Dhenkánal, 650 houses; Lat. 20° 39′ 45″; Long. 85° 38′ 20″. (2.) Kontheo, 273 houses; Lat. 20° 46′ 24″; Long. 85° 32′ 30″. (3.) Sanda, 346 houses; Lat. 20° 50′ 6″; Long. 85° 27′ 9″. (4.) Komar, 422 houses; Lat. 20° 50′ 0″; Long. 85° 21′ 48″. Weekly markets are held at two villages on the banks of the Bráhmaní, Hodipur, and Sadáipur, at which the usual country produce is sold. The name Dhenkánal is said to owe its origin to the fact of the founder of the family having killed the original owner, named Dhenká, in a stream (*nálá*), about 500 years ago, since which time about twenty-three chiefs have ruled, and constantly enlarged their territory by annexations from the neighbouring States. For further particulars see my work on Orissa.

HINDOL, bounded on the north and east by Dhenkánal; on the south by Narsinhpur and Barambá; and on the west by Angul. Area, 312 square miles, with 134 villages, 3735 houses, and 20,729 inhabitants, according to the Topographical Survey of 1860–62; and 123 villages, 3703 houses, and 20,366 inhabitants, according to a Return submitted by the Rájá in 1870. It pays a yearly tribute of £55 to Government, and yields an income of about £1000 a year to its chief. The southern half of the State consists of a wild and jungly range of hills called Kanaká, rising to over 2000 feet high. The Cattack and Sambalpur high road runs through the district, and small quantities of country produce find their way by it to the Mahánadí, and are there sold to travelling merchants. No fairs or markets are held, and only five villages contain over 100 houses:—(1.) Hindol, 297 houses; Lat. 20° 35′ 54″; Long. 85° 14′ 23″. (2.) Karindá, 197 houses; Lat. 20° 42′ 32″; Long. 85° 22′ 50″. (3.) Didárkot, 107 houses; Lat. 20° 41′ 26″; Long. 85° 18′ 36″. (4.) Kanjágolá, 105 houses; Lat. 20° 42′ 12″; Long. 85° 20′ 12″. (5.) Navapatná, 100 houses; Lat. 20° 38′ 5″; Long. 85° 20′ 35″. Hindol consisted originally of three or four very petty

States completely buried in jungle, and ruled by separate chiefs, till two Marhattá brothers belonging to the family of the Kimidi Rájá drove them out, and formed their territories into one principality. The present chief is the twenty-fifth in descent from the founders. His emblem of signature is a sword (*Katár*).

Keunjhar is bounded on the east by the State of Morbhanj and the District of Balasor; on the south by Morbhanj; on the north by Pál Lahará; and on the west by Bonái, a Tributary State in the Chhotá Nagpur Division. It has an area of 3096 square miles, and an estimated population of 170,000. It yields to its Rájá an income of about £5000 a year, and a tribute of £197 to Government. The Baitaraní River rises among the ranges of its south-west division. Keunjhar originally formed part of Morbhanj. But, about two hundred years ago, the tribes of this part finding it a great hardship to have to travel through perilous forests to Morbhanj, to obtain justice from their prince, separated themselves, and set up the brother of the Morbhanj Rájá as their independent chief. Since then, twenty-seven Rájás have reigned. The last prince rendered good service during the Kol rebellion in 1857, and was rewarded by Government with the title of Mahárájá. He died without legitimate issue; and a dispute arose about the succession, which was ultimately decided in favour of his natural son. The emblem of signature is a pea-fowl. A fuller account of this State will be found in my Account of Orissa. Keunjhar = Kendu-Jhár, the Kendu tree.

Khandpara, bounded on the north by the Mahánadí; on the south by the District of Purí and the State of Nayágarh; on the west by Daspallá; and on the east by Purí District. Area, 244 square miles. The Topographical Survey 1860–62 estimated the number of villages at 281, with 8245 houses and a population of 45,760. A Return prepared for me in 1870, gives the population at 57,180, and with this the Rájá's calculation substantially agrees. The latter estimates the villages at 250, with 10,685 houses and 58,768 inhabitants. Khandpárá is a very valuable territory, and one of the most highly cultivated of the Tributary States. The only two seats of trade in it are Kantilo, with 850 houses in 1862, and 1113 in 1870, Lat. 20° 21′ 46″, Long. 85° 14′ 20″; and Padmábatí, 282 houses, Lat. 20° 20′ 27″, Long. 85° 21′ 46″. Both are situated on the banks of the Mahánadí. No regular fairs are held, but merchants from Cattack bring salt, spices, etc., to exchange for cotton, wheat, clarified butter, and oil-seeds from Sambalpur. Tribute, £421; chief's income, £2445. Fine Sál timber abounds in the hilly parts of the State, and magnificent mango and banyan trees stud the plains. Besides the two seats of trade mentioned above, five other villages contain over 100 houses, viz.—

(1.) Khandpárá, the residence of the Rájá, 680 houses; Lat. 20° 15′ 55″; Long. 85° 12′ 43″. (2.) Biengoniá, 211 houses; Lat. 20° 15′ 8″; Long. 85° 16′ 0″. (3.) Fatiágad, 158 houses; Lat. 20° 17′ 37″; Long. 85° 22′ 33″. (4.) Banmálipur, 130 houses; Lat. 20° 16′ 14″; Long. 85° 15′ 12″. (5.) Nemapol, 109 houses; Lat. 20° 16′ 10″; Long. 85° 16′ 14′. This State originally formed a part of Nayágarh, and was separated, about 200 years ago, by a brother of the Nayágarh chief, who set up for himself. Since then, seven Rájás have ruled. The family emblem of signature is a tiger's head.

MORBHANJ is the largest of the Orissa Tributary States, and one of the most valuable. It is bounded on the south and east by the State of Nílgiri, and by the Balasor and Midnapur Districts; on the west and north by the State of Keunjhar. It extends over 4243 square miles, and presents every variety of soil and scenery. The Rájá, in 1870, returns the villages at 2319, with 24,224 houses and 132,232 inhabitants. The Superintendent of the Tributary States, in the same year, estimated the population at 191,200. Morbhanj yields an annual income of £10,000 to its Rájá, and £106 as tribute to Government. It abounds in rich valleys, but a vast extent remains under the primeval jungle. Of this latter, a considerable proportion might be brought under tillage. The Meghásaní hill rises to the height of 3824 feet in the southern part of the State, and well merits its name, literally the Seat of Clouds. Morbhanj is divided into three parts—Morbhanj Proper, Upen-bágh, and Bámanghátí. The last is under British management, necessitated by a peasant rebellion brought on by the oppression of the aboriginal population, Kols and Bhúiyás, by the land-stewards and petty officials of the Rájá. Upen-bágh is also under English surveillance, a body of our police being quartered there at the Rájá's expense. Large herds of elephants roam through the forests and mountains of Morbhanj, and very successful Khedda operations have been carried on for the last two years—upwards of 100 fine elephants having been caught. The chronicles relate that the principality was founded more than two thousand years ago by a relative of the Rájá of Jaipur, in Rájputaná. The emblem of signature is a pea-fowl, and the killing of this heraldic bird is strictly prohibited throughout the State. Further details regarding Morbhanj will be found in the main part of this volume.

NARSINHPUR, bounded on the south and south-west by the Mahánadí; on the north by a range of jungly mountains; and on the east by the State of Barambá. Area, 119 square miles. The Topographical Survey in 1860–62 reported the villages at 191, with 4893 houses and an estimated population of 27,156. The Rájá, in

1870, returns the villages at 173, with 5279 houses and 39,037 inhabitants. The State yields an income of about £1200 a year to its chief, and pays an annual tribute of £145 to Government. Bi-weekly markets are held in a clump of mango trees at Kánpur, a town of 331 houses, in Lat. 20° 24′ 4″, Long. 85° 3′ 21″, where grain, cotton, sugar-cane, and oil-seeds are bartered for salt and cloths from Cattack. Five other towns contain over 100 houses, viz.—(1.) Narsinhpur, 313 houses; Lat. 20° 27′ 59″; Long. 85° 7′ 3″. (2.) Adaigundi, 151 houses; Lat. 20° 27′ 59″; Long. 85° 11′ 53″. (3.) Ekdál, 126 houses; Lat. 20° 23′ 52″; Long. 85° 10′ 37″; (4.) Bukda, 122 houses; Lat. 20° 27′ 35″; Long. 85° 12′ 57″. (5.) Ságar, 101 houses; Lat. 20° 27′ 49″; Long. 85° 11′ 6″. Narsinhpur was founded three hundred years ago by a Rájput who slew its former chiefs, two Kandhs, by name Narsinha and Poro. Since then, twenty-two chiefs have reigned. The emblem of signature is a scorpion.

NILGIRI, bounded on the east and south by the District of Balasor, and on the north and west by Morbhanj, has an area of 278 square miles, and a population, as estimated by the Superintendent in 1870, of 21,000. The Rájá, in the same year, returns the villages at 241, with 5030 houses and 27,665 inhabitants. The State pays an annual tribute of £390, and yields an income of about £1945 to its chief. One-third of it consists of mountains, one-third of waste jungle land, and one-third is under cultivation. Nílgiri was founded by a kinsman of the family of the Rájá of Chhotá Nágpur, who married a daughter of the king of Orissa, Pratáb Rudra Deo. The present chief claims to be the twenty-fourth in the line of descent. His emblem of signature is a *Karolá* flower. The State contains valuable quarries of black stone, from which cups, bowls, platters, etc. are made.

NAYAGARH, bounded on the east by Ranpur; on the north by Khandpárá; on the west and south by Daspallá and Gumsar. Area, 558 square miles, containing 690 villages, many of which, however, are deserted; 13,883 houses, and a population estimated at 77,051. Nayágarh is a large and valuable State, with great tracts of highly cultivated land, yielding an annual income of £5000 to its chief, and a tribute of £552 to Government. Towards the south and south-east, however, the country is exceedingly wild, and incapable of tillage; but the soil of the jungles on the west might be profitably brought under cultivation. The State abounds in noble scenery; and a splendid range of hills, varying from two to three thousand feet in height, runs through its centre. It sends rice, coarse grains, cotton, sugar-cane, and several kinds of oil-seeds to the neighbouring Districts of Cattack and Ganjám. Nine villages contain upwards of 100 houses, viz.—(1.) Nayágarh,

495 houses; Lat. 26° 7′ 45″; Long. 85° 8′ 10″. (2.) Itámáti, where bi-weekly markets are held, 360 houses; Lat. 20° 8′ 12″; Long. 85° 11′ 42″. (3.) Nandigoro, 200 houses; Lat. 20° 0′ 51″; Long. 85° 9′ 9″. (4.) Kural, 217 houses; Lat. 20° 0′ 52″; Long. 84° 57′ 40″. (5.) Godiápárá, 168 houses; Lat. 20° 2′ 22″; Long. 85° 12′ 29″. (6.) Nátipadá, 190 houses; Lat. 20° 26′ 3″; Long. 85° 11′ 50″. (7.) Birudá, 135 houses; Lat. 20° 7′ 57″; Long. 85° 13′ 47″. (8.) Bansiápárá, 199 houses; Lat. 20° 10′ 0″; Long. 85° 13′ 56″. (9.) Shikárpur, 166 houses; Lat. 20° 1′ 50″; Long. 85° 8′ 40″. Nayágarh was founded about five hundred years ago by a Rájput belonging to the family of the Rájá of Rewah, twenty-one generations distant from the present chief. It originally comprised Khandpárá, but a brother of the then reigning chief separated this latter territory about two hundred years ago, and erected it into an independent State. The Rájá's emblem of signature is a tiger's head.

Pal Lahara formerly belonged to Keunjhar, but was partially separated in consequence of family quarrels. It is bounded on the east by Keunjhar; on the south by Dhenkánal; on the west by Tálcher; and the north by Bonái. Area, 452 square miles, containing 158 villages, 2170 houses, and an estimated population of 12,044. A magnificent mountain, Malayagiri, 3895 feet high, with building space and water on its summit, towers above the lesser ranges. The State produces the usual coarse grains and oil-seeds, but has nothing worthy of the name of trade. Lahará, the residence of the Rájá, is the only village of more than 100 houses. The story of the separation of Pál Lahará from Keunjhar is as follows: Once upon a time, the Keunjhar Rájá compelled his feudatory of Pál Lahará to dance before him in women's attire. From this affront a deadly quarrel resulted, and at the end, as the price of peace, the Pál Lahará chief was exempted from any longer paying his tribute through the Keunjhar Rájá, and now pays it to the British Government direct. The money, however, is still credited in our treasury accounts to the Keunjhar State, although for all practical purposes Pál Lahará is independent of the Keunjhar Rájá and utterly disowns his authority. Pál Lahará contains some of the finest Sál forests to be found in the world.

Ranpur, bounded on the north, south, and east by Purí District, and on the west by Nayágarh, has an area of 203 square miles, containing 173 villages, with 2603 houses and a population estimated at 14,447. The State yields an income of £1500 to its chief, and a tribute of £140 to Government. The only town is the Rájá's place of residence, which consists of one long and wide street, containing 600 houses. The country products are here bartered, in bi-weekly

markets, for iron, cotton, blankets, cloth, silk, wheat, and clarified butter, which are brought from Khandpárá, and for fish from the Chilká Lake. The south-west part of Ranpur is a region of jungly hills, almost entirely waste and uninhabited, which wall in its whole western side, except at a single point where a pass leads into the adjoining State of Nayágarh. Tradition states that a hunter named Básura Básuk founded this State some 3600 years ago. It was originally of small extent, but 109 generations of chiefs had constantly annexed their neighbours' territories, until the accession of the British power put an end to such internecine struggles. It is said to take its name from a giant named Ranásur, who lived in it. The emblem of the chief's signature is a sword.

TALCHER, bounded on the north by Pál Lahará, on the south and west by Angul, and on the east by Dhenkánal, comprises an area of 399 square miles, with an estimated population of 30,100. It yields an annual income of £1200 to its chief, and £103 to Government. Iron, lime, and coal are found near the banks of the Bráhmaní. Gold is also obtained by washing the sand of the river, but the process is very primitive, and yields but little profit to the workers. The only town of any size in the State is that of Tálcher, the residence of the Rájá, situated on the right bank of the Bráhmaní, in Lat. 20° 57′ 25″, Long. 80° 16′ 58″, and containing 476 houses. There are a few other villages numbering 100 houses. The State was founded about five hundred years ago by a son of the then Rájá of Oudh, who forcibly ejected the savage tribe which had previously inhabited it. It is stated that the founder had to uproot many palm trees in order to make room for his habitation, and that the name Tálcher was derived from this circumstance. Since then, seventeen chiefs have reigned. The title of Mahendra Bahádur was bestowed upon the Rájá by the British Government, as a reward for services rendered during the Angul disturbances. The emblem of the chief's signature is a tiger's head.

TIGARIA, bounded on the south by the Mahánadí; on the north by Dhenkánal; on the west by Barambá; on the east by Athgarh. Area, 46 square miles. The Topographical Survey 1860–62 reports the number of villages at 134, with 3735 houses and 20,729 inhabitants. The Rájá, in 1870, returned the villages at 79, with a population of 15,482. The Superintendent, in the same year, estimated the inhabitants at 25,909. The State yields to its chief an income of about £800 per annum, and a tribute of £88 to Government. It is one of the smallest of the Tributary States, but populous and well cultivated, except among the hills and jungles at its northern end. It produces the usual coarse rice and grains, oil-seeds, sugar-cane, tobacco, cotton, etc., for the

transport of which the Mahánadí affords ample facilities throughout its whole southern part. But only two villages boast of the bi-weekly fairs common in the Tributary States. Two towns contain over 100 houses,—Gopínáthpur, with 490 houses, Lat. 20° 26′ 46″, Long. 85° 30′ 38″; and Pánchgáon, with 132 houses, Lat. 20° 28′ 1″, Long. 85° 34′ 4″. The little principality dates from about 400 years ago, when Sur Tung Sinh, a Purí pilgrim from Northern India, halted on his way back, drove out the aboriginals, seized the country, and founded the present family. Twenty-six chiefs have reigned since then. The State was originally much larger than at present, and is said to derive its name from the fact of its having consisted of three divisions, defended by forts (tri garh, or, in Uriyá, gara). Extensive domains have, however, been carved out of it by the neighbouring chiefs in the time of the Marhattá Government. The emblem of signature is the Five Weapons (*Sastra pancha*).

Legislative History.—In the earlier part of this Account I have briefly sketched the Administrative and Revenue annals of the Tributary States. These States, however, have formed the subject of frequent legislation of a special character. We took them over from the Marhattás in 1805 with the rest of Orissa; but as they had always been tributary States rather than regular Districts of the Native Governments, we exempted them from the operation of our general Regulation system, by Sections 36, 13, and 11 of Regs. xii., xiii., and xiv. of 1805. This exemption was recognised on the ground of expediency only; and it was held that there was nothing in the nature of our connection with the proprietors that would preclude their being brought under the ordinary jurisdiction of the Courts, if it should ever be thought advisable.

The office of Superintendent was established in 1814, and he was directed to endeavour to establish such control over the conduct of the zamindárs as might prevent the commission of crimes and outrages.

Regulation xi. of 1816 appears to be the only law by which the Superintendent was invested with any judicial authority; and, by that law, claims to inheritance and succession among the Rájás are disposed of by him.

In 1821 the Government ruled that the interference of the Superintendent should be chiefly confined to matters of a political nature; to the suppression of feuds and animosities prevailing between the Rájás of adjoining Mahals, or between the members of their families, or between the Rájás and their subordinate feudatories; to the correction of systematic oppression and cruelty practised by any of the Rájás or by their officers towards the inhabitants; to the

cognizance of any apparent gross violation by them of their duties of allegiance and subordination; and generally, to important points, which, if not attended to, might lead to violent and general outrage and confusion, or to contempt of the paramount authority of the British Government.

In 1839 Mr. Ricketts proposed the introduction of a regular system of management, but the rules proposed by him and by his successor, Mr. Mills, were not approved. Instructions were, however, given to draw up some short, clear, and well defined regulations, making the Rájás responsible to the Superintendent in all cases of murder, homicide, and heinous offences, without, however, interfering so far as to make them amenable to the Civil Court of the Superintendent in cases between the Rájás and their creditors. In accordance with the above instructions, Mr. Mills prepared revised rules, and submitted them for approval. These revised rules proposed that the Rájás should be prohibited from exercising the powers of life and death; from subjecting any offender to torture, mutilation, or other punishment opposed to the principles of British rule; and from allowing the practice of widow-burning and human sacrifices within their territories;—that they should be made liable to punishment for murder or other heinous offences committed by them, and should be held responsible for the amount of property robbed from travellers, if the commission of the crime and the non-recovery of the property were due to their imperfect police or want of care;—that the Superintendent's power of interference should be increased, so as to take cognizance of offences committed by foreigners in the Tributary States; to hold preliminary inquiries in heinous offences committed by the Rájás, and to sentence all offenders except the Rájás to imprisonment for a term not exceeding seven years;—that the punishment of the Rájás, and all punishments exceeding seven years, should be awarded by the Government of Bengal. The Bengal Government, however, thought it better not to pass any permanent or defined rules upon the subject, but directed that the spirit of the proposed rules should be acted up to in all future cases, with certain limitations, and that the Rájás should be informed that they are ordinarily amenable to the Superintendent's Court, subject to such instructions as may from time to time be furnished by the Government. These orders are now in force; and all sentences of more than seven years' imprisonment, although passed by the Superintendent, have to be reported to Government for confirmation.

Under Government order No. 3364, of September 1858, the system of trying petty criminal cases *vivâ voce* was extended to the Tributary States.

Act xx. of 1850 was enacted for settling the boundaries of the Tributary States, and is still in force.

Acts viii. and xiv. of 1859 were extended to the Tributary States of Bánki and Angul, from the 1st January 1862. As regards the States under the Rájás, the proviso contained in Section 11 Regulation xiv. of 1805 is still in force.

The Penal Code was declared applicable to the Tributary States by an order of the Government of India, No. 2425, dated the 18th December 1860.

Under orders of Government of Bengal, No. 1875, dated the 11th March 1863, the criminal authorities were directed to be guided in their proceedings as closely as possible by the spirit of the Criminal Procedure Code. Section 13 of Regulation xiii. of 1805 is still in force.

In the estates under the direct management of Government, viz. Bánki and Angul, the Civil and Criminal Procedure Codes, as well as Act v. of 1861, are in force. They are in fact virtually treated as Regulation Districts. This is the case also in the Kandh-máls.

APPENDIX IV.

STATISTICAL ACCOUNT OF THE DISTRICT OF CATTACK.

CATTACK DISTRICT, the Central Division of Orissa, lies within the twentieth degree of north latitude, and the eighty-fifth and eighty-seventh degrees of east longitude. It is bounded on the north by the Baitaraní and Dhámrá Rivers; on the east by the Bay of Bengal; on the south by the District of Purí; and on the west by the Tributary States. Area, after recent transfers, 3178 square miles. Population, 1,293,084 souls.

THE JURISDICTION of Cattack District has been frequently changed, and it was not until the 26th November 1868 that a Government notification assimilated the revenue and magisterial boundaries, by making the Baitaraní and Dhámrá Rivers the northern limit in both departments. Previously, the Baitaraní had only formed the magisterial boundary, while several Fiscal Divisions on the north of it belonged to the Cattack Collectorate, and several on the south of it to the revenue jurisdiction of Balasor. The new arrangement took effect, as regards the transfer of estates from the rent-roll of one District to the other, from the 1st April 1870. The civil jurisdiction of the Judge of Cattack extends over all the Districts of Orissa, except the Tributary States; and in his criminal functions he proceeds on circuit to Purí and Balasor, to hold sessions at certain periods of the year. The jurisdictions of the local subordinate judges (Munsifs) do not at all coincide with those of the subdivisional officers in the revenue and magisterial departments, but a scheme for assimilating them is now under consideration.

NATURAL DIVISIONS.—The District of Cattack, like that of Balasor,

consists of three distinct tracts :—First, a marshy woodland strip along the coast, from three to thirty miles in breadth; second, the intermediate rice plains in the older part of the delta; third, the broken hilly region which forms the western boundary of the District.

THE MARSHY STRIP along the coast resembles the Bengal Sundarbans as regards its swamps, dense jungle, and noxious atmosphere; but it entirely lacks their noble forest scenery. I have examined the flora of both; and so far as my knowledge extends, it is substantially the same, excepting that everything is on a smaller scale in the Orissa Sundarbans. I give as a separate Appendix, a list of plants which I collected on the islands around False Point, and in the jungles which stretch inland from them, as it may possibly be of service to some one who knows more about the subject than myself. The tract is intersected by innumerable streams and creeks, whose sluggish waters deposit their silt, and form morasses and quicksands. Cultivation does not begin till the limits of this dismal region are passed.

THE INTERMEDIATE PLAINS stretch inland for about forty miles, and occupy the country between the marshy sea-coast strip and the hilly frontier. They are intersected by four large rivers, which emerge from the western mountains, and throw out a network of branches in every direction. These, after innumerable twists and interlacings, frequently rejoin the parent stream as it approaches the ocean. It is a region of rich rice fields, dotted with magnificent banyan trees, thickets of bamboos, exquisite palm foliage, and fine mango groves. It forms the only fertile and really paying part of the District.

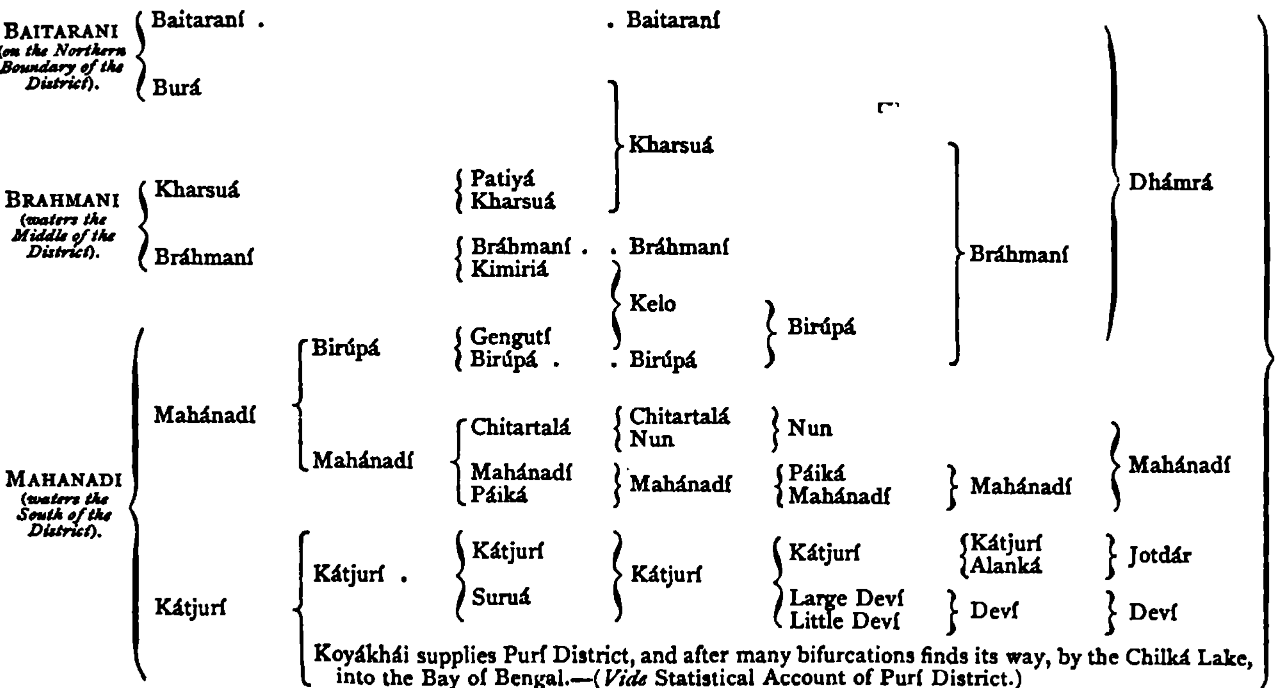
THE HILLY FRONTIER separates the settled part of Orissa from the semi-independent Tributary States. It consists of a series of ranges, from ten to fifteen miles in length, running nearly due east and west, with thickly-wooded slopes and lovely valleys between. This region annually sends down vast quantities of minor jungle products to the plains, such as I have described in the Statistical Account of the Tributary States; but unfortunately the timber is small, and of little value except as fuel.

THE POLITICAL CHARACTER of these three tracts is as distinct as are their natural features. The first and third are still occupied by their ancient feudal chiefs, and have never been subjected to a regular settlement, either by the Musalmán or the British Government. They pay a light tribute, now permanently fixed. The intermediate plains known as the Mughulbandí, from their having been regularly settled by the Muhammadans, have yielded to the successive dynasties of Orissa the chief part of their revenue. At present they form an ordinary British District in every respect, excepting that the arrangement

for the land revenue is made for a period of thirty years instead of in perpetuity.

MOUNTAINS can scarcely be said to exist within the District. The highest hills do not exceed 2500 feet; and these, with the exception of a few isolated peaks near the town of Cattack, all lie in the western or frontier region. They are steep, and covered with jungle, but can be ascended by men. Many of them are interesting as Shrine Hills, or for their ancient forts; and when writing my General Account of Orissa (p. 179), I promised to describe them in this Statistical Account. But much of the unpublished material which I then possessed has since been printed in the Journal of the Bengal Asiatic Society, vol. xxxix. p. 158, by the Hindu gentleman who had kindly lent me his documents. I therefore refrain from ground which has been so recently and so ably occupied, and refer antiquarian readers to Babu Chandrasekhara Bánarji's essay. The most interesting hills are in the Asia Range, particularly Náltigiri, with its Sandal Trees and Buddhist remains; Udayagiri (Sunrise-hill), with its colossal image of Buddha, sacred reservoir, and ruins; Asiagiri, with its mosque of 1719 A.D., 2500 feet above the sea. The Mahávinyaka peak, visible from Cattack, has been consecrated for ages to Siva-worship by ascetics and pilgrims, who have penetrated its jungles, fearless of the wild Savar Tribes.

RIVER SYSTEM.—The great feature of Cattack District is its rivers. These issue in three magnificent streams, by three gorges, through the hilly frontier. On the south, the Mahánadí, literally the Great River, pours down upon the delta from a narrow gully at Naráj, about seven miles west of the town of Cattack. On the extreme north of the District, the sacred Baitaraní, the Styx of the Hindus, emerges from a more open country, and forms the boundary line between Cattack and Balasor. The Bráhmaní enters the District about half-way between the two; and Cattack is thus divided into two great valleys, one of them lying between the Baitaraní and the Bráhmaní, and the other between the Bráhmaní and the Mahánadí, and both, therefore, bounded by a river on either side. I say valleys, because the Cattack rivers, according to the law of delta streams explained in my Account of Orissa, run along the high levels, with low lines of drainage between them. They are, in fact, natural canals; and during floods their waters pour over their banks into the surrounding valleys, forming a thousand channels and distributaries, which interlace with each other, and establish direct communication between the parent streams. The following scheme illustrates the main points in the river system of the District, but the minor interlacings are innumerable:—


THE RIVER SYSTEM OF CATTACK DISTRICT.
BAITARANI (on the Northern Boundary of the District).
Baitaraní
Burá
Baitaraní
BRAHMANI (waters the Middle of the District).
Kharsuá
Bráhmaní
Patiyá
Kharsuá
Kharsuá
Bráhmaní
Kimiriá
Bráhmaní
Kelo
Bráhmaní
Dhámrá
MAHANADI (waters the South of the District).
Mahánadí
Birúpá
Gengutí
Birúpá
Birúpá
Birúpá
Mahánadí
Chitartalá
Mahánadí
Páiká
Chitartalá
Nun
Nun
Mahánadí
Páiká
Mahánadí
Mahánadí
Mahánadí
Kátjurí
Kátjurí
Kátjurí
Suruá
Kátjurí
Kátjurí
Large Deví
Little Deví
Kátjurí
Alanká
Deví
Jotdár
Deví
BAY OF BENGAL.
Koyákhái supplies Purí District, and after many bifurcations finds its way, by the Chilká Lake, into the Bay of Bengal.—(*Vide* Statistical Account of Purí District.)

DISTRIBUTION OF WATER SUPPLY.—Owing to another peculiarity of delta rivers, the water which is thus poured down upon the plains at the three gorges, greatly exceeds the volume which the lower channels are able to carry off. The rivers issue from the hills heavily laden with silt, which they deposit when their velocity is checked by the dead level of the delta. Their beds thus gradually shallow, and prove more and more unable to carry off the floods to the sea, so that every year a large quantity of surplus water pours over the banks. In 1858, Captain Harris, after a series of most careful investigations, arrived at the following conclusions with regard to the Mahánadí. During high floods, 1,800,000 cubic feet of water pour every second through the Naráj gorge seven miles above Cattack City, while the total distributaries and channels, half-way between that point and the Bay of Bengal, only afford accommodation for 897,449 cubic feet, or less than one half. The remaining half would infallibly devastate the surrounding country were it not for the embankments; but even with embankments, a very large proportion of it every year pours down on the rice fields. During time of flood, about 250,000 cubic feet per second, or from one-seventh to one-eighth of the total, strikes into Purí District by means of the Koyákhái. The remaining six-sevenths, or, in round numbers, a million and a half of cubic feet, pour every second through the Kátjurí, Birúpá, and Mahánadí proper, into the Cattack District. To get rid of this vast volume of water, the Purí rivers have only the means of carrying off 111,755 cubic feet per second, while all the distributaries in Cattack District can only dispose of 788,694 cubic feet. For the portion which passes into Purí *via* the Koyákhái, see Statistical Account of Purí District.

CAPACITY OF CATTACK RIVERS AT A SECTION HALF-WAY BETWEEN CATTACK CITY AND THE SEA.

NAMES OF RIVERS.	Fall per Mile at Point of Section.	Mean Depth of Section in Feet.	Calculated Velocity by Etelwyn's Formula, in Feet per Second.	Calculated Discharge per Second, in Cubic Feet.
Little Deví,	1·20 feet	18·87	6·06	34,306
Large Deví,	1·20 ,,	29·55	7·58	148,434
Alanká, .	1·00 ,,	16·60	5·18	23,641
Mahánadí, .	1·20 ,,	15·14	5·40	243,589
Páiká, . .	1·25 ,,	17·52	5·96	113,836
Chitartalá, .	1·30 ,,	14·23	5·47	83,653
Nun, . . .	1·60 ,,	20·71	7·33	107,047
Do., Watercourse adjoining,	...	...	4·75	10,293
Birúpá, . .	·65 ,,	10·19	3·28	23,895
	Average, 1·17	Average, 17·85	Average, 5·66	788,694

ESTUARIES AND HARBOURS.—As the Cattack Rivers enter the District by three great gorges in the hills, so, after innumerable bifurcations, they find their way into the ocean by three principal mouths. On the north, the Baitaraní and Bráhmaní debouch into the Bay of Bengal, under the name of the Dhámrá, at Point Palmyras; while the Mahánadí, or rather that portion of it which remains in Cattack District, after a variety of interlacings, forms two great estuaries,—one bearing the name of the Mahánadí at False Point; the other, generally known as the Deví, with its connected channel the Jotdár, in the south-eastern corner of the District. I propose to briefly examine these points of exit, explaining their capabilities as harbours, and the perils incident to their approach. By keeping the first of the two preceding Tables before him, the reader will find his part of the task greatly simplified.

THE DEVÍ, literally The Goddess (a title specially applied to the wife of the All-Destroyer), with its channel the Jotdár, forms the last part of the great network of rivers into which the Kátjurí branch of the Mahánadí bifurcates. According to a characteristic of the Cattack streams, most of the members of the network re-unite as they approach the ocean, and the result is a broad and noble estuary, which, under the name of the Deví, enters the sea in north latitude 19° 58′, and east longitude 86° 25′. A permanent beacon has recently been erected at the mouth, in latitude 19° 58′; and a chart of the channel was in 1869 completed in three sheets. For seven miles inland from the mouth an excellent channel of sixteen to twenty-four feet is obtained. Above this distance the river shallows rapidly, and is only navigable by country boats. Unfortunately, however, this admirable harbour is rendered almost useless by bars of sand across its mouth. During the cold season, or from November to March, vessels drawing ten feet of water can safely enter it by watching the tide. But once the south-west monsoon has set in, the surf rages outside in a way that renders the approach of vessels perilous in the extreme. During this season, navigators, if they dare to approach at all, must go by the depth shown in the new charts of the Indian Marine Department, dated 1869. Outside the bar the water shoals rapidly from 44 to 6 feet. The bar itself is two hundred yards broad, with four feet of water at lowest tide. Once past this, the channel again deepens through six and seven feet to twelve feet; and higher up, as already stated, from sixteen to twenty-four feet. The ordinary rise of the tide is from four to six feet. It runs for twenty-eight miles up the river, and this is the limit of navigation even for country boats, if laden, in the dry season. After the rains, and at the beginning of the cold weather, a much greater depth of water is obtained; and an extensive rice trade has developed at Máchhgáon, about nine miles from its

mouth. Sea-going brigs cannot get up to the mart, but they float in with the tide as far as they can, and are laden from country cargo-boats. The mouth is surrounded by dense jungle, destitute of inhabitants or of tillage; and a line of surf, on both sides of the channel, forms a continuous landmark for vessels running in and out. I have never heard of an English ship venturing into the estuary, nor is the harbour mentioned in Horsburgh's Sailing Directions; but the Madras traders with native masters and crews willingly take the risk in their lighter craft, and get lucrative freights, owing to the local cheapness of rice. The shoals and bars vary in depth from year to year.

THE MAHANADI ESTUARIES; FALSE POINT.—The northern branches of the Mahánadí, after endless bifurcations, also re-unite towards the sea, and eventually enter the Bay of Bengal under the name of the parent stream. The estuary has several mouths, but the principal one is that which debouches through the shoals to the south of False Point Lighthouse. For many miles up the river there is abundance of depth for ships of 300 or 400 tons burden; but unfortunately, as in the case of the Deví, and indeed of all other Orissa harbours, a bar stretches across the mouth, which, in addition to the perils of shoal water, adds to the dangers which are incident to constant changes in the channels and the sandbanks. For example, charts still in use show the Pátkund channel (which branches off from the Mahánadí about fifteen miles higher up) as debouching through a fair entrance of its own into the sea. But this entrance is reported by the local authorities as now closed by a high ridge of sand; and the river thus shut out from the ocean, runs parallel to the coast in a north-easterly direction, till it re-enters the Mahánadí near its mouth.

FALSE POINT, on the north of the Mahánadí estuary, consists of an anchorage land-locked by islands and sandbanks, and with two channels navigable to the inland. It derives its name from the circumstance that ships proceeding northward frequently mistook it for Point Palmyras, a degree farther north. It lies in north latitude 20° 20′, and east longitude 86° 47′, and was reported by the Famine Commissioners in 1867 to be the best harbour on the coast of India from the Hugly to Bombay. A lighthouse is situated on the point which screens it from the southern monsoon, in latitude 20° 19′ 52″ N., longitude 86° 46′ 57″ E.; and the harbour is protected by two sandy reefs, Long Island and Dowdeswell Island, the latter being a long narrow spit of sand, which completely land-locks the anchorage. Point Reddie, at the extremity of this latter island, protects the entrance. The harbour is safe and roomy, and the channel properly buoyed. I have very carefully examined the harbour on two occasions, both from the sea and from the inland; and so far as

I could learn, the channels have of late deepened rather than shallowed. In February 1870, I lay far enough in to be perfectly well protected, in a steamer drawing twenty-one feet. At the last survey in October 1868, twenty-five feet of water were given as the *reduced* minimum depth at A[a] buoy, the channel gradually shallowing to a depth of twenty feet, about five hundred yards north-west of B buoy. At a reduced minimum depth of twenty feet, good protection can be obtained from the south-west monsoon; but by proceeding inwards to B or C buoys, with a reduced minimum depth of fourteen and sixteen feet respectively, the protection is as much as need be desired. The channel then gradually shallows through fifteen to thirteen feet at lowest tide, which is reached two hundred and fifty yards north-west of D buoy, and here the protection is absolute. Navigators ought to procure the recent survey by Mr. Harris of the Marine Department; on which, however, Colonel Rundall's Note may also be consulted by persons wishing to make themselves perfectly acquainted with the capabilities of the Mahánadí estuary and channels. A soft mud bottom averts the dangers incident to vessels taking the ground. The latest Survey Report (dated 10th May 1870) recommends that a vessel making the port should give Point Reddie a berth of half a mile, steering up midway between the buoys. Should the buoys be gone, she should keep False Point Lighthouse midway between the two small beacons on Plowden's Island. Vessels drawing 18 to 20 feet should anchor near B and C buoys, unless they wish to discharge cargo, when they may with perfect safety run in till they ground on the soft olive-coloured mud. Inside of Dowdeswell Island lies Plowden Island, for the most part a low jungly swamp, but with a limited extent of high ground on its eastern face, suitable for building purposes. The island is also provided with wells, from which good drinking water may be obtained.

INLAND CHANNELS FROM FALSE POINT.—Two separate channels lead inland from the anchorage,—the Jambu River on the north, and on the south the Bákud Creek, a short deep branch of the Mahánadí. Unfortunately for inland navigation by ships, bars of sand intervene between the anchorage and these channels, and, except at high water, block the entrance to both. At full tide, cargo-boats and steamers enter with ease.

THE JAMBU bar stretches for about three-quarters of a mile, and has one foot of water at lowest tide; after passing which, a channel of two feet, gradually deepening to ten, is obtained in the lowest tide. Higher up, the depth increases to eighteen, and in some places to twenty-eight feet, and a channel of not less than ten may be relied on as high up as Deulpárá. The navigation is rendered difficult by the winding of the stream, especially during the freshes, when a very strong current comes

down. Nor is the channel so wide as the second route presently to be described; and towards Deulpárá it shoals and narrows to an extent that marks this point as the safe limit of navigation for heavily laden country boats. A creek here unites it with the Nun River, near the entrance of the Kendrápárá Canal at Mársághái. This entire route passes through a waste and often desolated country. During floods, the whole tract to the east or coast side is one large sea or jungle-covered swamp. It belonged to the Kujang Rájá, an ancient family crushed by debt, and unable to do anything towards the protection of his territory from the rivers. It has recently been purchased by the Mahárájá of Bardwán, and it is hoped that the wealth and public spirit of this nobleman will inaugurate a new era in those parts.

THE BAKUD, or Southern Channel, is the most direct for navigation inland. A bar of about a thousand yards in length lies across its mouth, and is dry during the last quarter of the ebb. After passing it, a channel of two feet is obtained, gradually deepening to eight, then shoaling again to two, and eventually deepening into an excellent channel of from fourteen to twenty feet, up to its junction with the Mahánadí, a distance of about sixteen miles. It was in this creek that Government established its rice depot for throwing supplies into the Province during the famine of 1866. Eight miles above its bifurcation from the Mahánadí is the junction of the latter river with the Nun. Here a choice of two routes will soon be offered; one lying up the Nun to Mársághái, the entrance to the Kendrápárá Canal, while the other will proceed by the Mahánadí to the Táldandá Canal, at present under construction. The only route yet available, however, is the former one, *via* the Nun, which has an excellent channel of twelve feet as far as Baulpárá, where it takes a turn, forming a shoal of about a thousand yards, with a narrow channel with eleven to fifteen feet of water. This depth can be relied upon until within two miles of Mársághái, the entrance to the canal, where the river wheels sharply round to the north and shallows fast. This is the safe limit of navigation for river steamers and cargo-boats, but the latter can proceed higher up by catching the flood tide.

Besides the two inland routes above mentioned, several tidal creeks run along the coast, and connect False Point anchorage with the Dhámrá and Bráhmaní Rivers on the north, and with the Deví on the south. Such channels are generally very winding and narrow. They are available, however, for country boats all the year round.

HISTORY OF FALSE POINT HARBOUR.—Till within the last eight years, False Point anchorage was little known, and almost unused. Although but two days by steamboat from Calcutta, no regular com-

munication existed; no important trade was carried on; and the exports, consisting chiefly of rice, were entirely in the hands of a few native shipmasters from the Madras coast. Horsburgh, in his Sailing Directions, dismisses it with a brief, and so far as regards the depth of water, an inaccurate notice. In fact, he treats of it as a beacon rather than as a harbour. About 1862, the newly started East India Irrigation Company perceived its capabilities for the importation of stores, and an enterprising French firm in Calcutta shortly afterwards established an agency for the export of rice. The arguments against False Point seemed, however, at that time to be conclusive. It was represented to be a fever-stricken spot, with no villages or local population, and with no practicable channels inland. But Colonel Rundall, with Mr. Faulkener, carefully investigated its capabilities, and strongly insisted upon the adoption of it as a harbour. Two thousand tons of material for the canals were landed direct from England from a ship of about 1200, and a barque of about 800 tons burden; the vessels being safely lodged within the anchorage, and discharging without loss of any sort. But it was during the famine year (1866), when Government was anxiously exploring every means of throwing supplies into the Province, that the capabilities of False Point were first publicly appreciated. The formation of the new canals has been the making of the port. Formerly, a traveller landing at the harbour found himself as far from Cattack as if he had never started from Calcutta. Its isolated and jungly situation, and the long, tedious boat route inland, through dense forests and across malarious swamps, rendered it impracticable for goods or passenger traffic. But now that the difficult upper half of the journey can be conveniently and rapidly done by a canal, and that the lower half is accurately surveyed, False Point has grown into the entrepot for the import and export trade of Orissa. A small steamer, maintained by Government, plies between the harbour and the entrance to the canal at Mársághái, from which point the passage is comfortable and rapid, compared with the old uncertain route round by the rivers. I was informed by the people on the spot that the malarial character of False Point has to a large extent disappeared; and the harbour-master, who as lighthouse-keeper has had many years' experience of the locality, assured me that both he and his subordinates had found False Point a healthy station. To the north of the entrance to the Jambu River is a large tract of high sandy land, suitable for building purposes; and during the hot months, when the breeze is off the sea, this site might be made a salubrious residence. It is easily accessible from the anchorage. At the end of the rains, newcomers would have to make up their minds to acclimatization, by

the usual malarial fever common to the whole coast of Bengal and British Barmah.

Imports and Exports.—The following is a statement of the import and export trade of the port of False Point, so far as the registers enable me to give it, for the nine years ending 1868–69:—In 1860–61, four vessels arrived and left; total tonnage, 2830 tons, — the largest ship being 402 tons; value of imports not given; value of exports, £6759. In 1861–62, ten vessels arrived, and eight left; total tonnage, 7756 tons; tonnage of largest vessel, 1026; value of imports not given; value of exports, £24,657. In 1862–63, fourteen vessels, six inwards and eight outwards; total tonnage, 4016 tons; tonnage of largest vessel, 517; value of imports not given; value of exports, £17,802. In 1863–64, sixteen vessels; total tonnage, 8681 tons; tonnage of largest vessel, 788; value of imports, £33,093; value of exports, £18,828. In 1864–65, sixteen vessels; total tonnage, 12,834 tons; largest vessel, 812 tons; value of imports, £4446; ditto of exports, £25,634. In 1865–66, total burden, 8055 tons, the largest ship being 1154 tons; value of imports, £1550; ditto of exports, £8225. In 1866–67, the year of the great famine, the value of the imports amounted to £184,859, the exports being *nil.* The imports, consisting almost entirely of grain for the relief of the starving population, were conveyed in fifty-one vessels of a total burden of 33,862 tons, the largest vessel being 1207 tons. In 1867–68, twenty-nine vessels, aggregating 33,023 tons—largest vessel, 1207 tons—brought imports to the value of £157,044, the value of the exports only amounting to £54. In 1868–69 fifteen vessels arrived, of a total burden of 13,574 tons; largest vessel, 1341 tons; value of imports, £1710; ditto of exports, £1920. The *bonâ fide* trade of False Point is chiefly with other Indian harbours, although, as already stated, the port is used as the landing-place for stores and material from England for the irrigation works, and these are sometimes re-shipped from Calcutta. During the six years for which I have classified returns of the imports, the value of goods brought from the United Kingdom aggregated £32,825; while those from Indian ports amounted to £348,216; besides £1742 worth of goods from foreign ports. With regard to the exports, I have classified returns for eight years, during which nothing was shipped to the United Kingdom, while the value of exports to Indian and foreign ports amounted to £103,883. The port is open throughout the year, but is visited by native vessels only during the cold season, although steamers now run between it and Calcutta in the height of the monsoon.

Future Capabilities and Improvements.—False Point, therefore, forms a harbour well marked by a lighthouse; provided with

drinking water and building ground; possessing direct routes inland to Cattack, the capital of the province; and furnishing absolute protection against the south-west monsoon. The existence of the bars across the mouths of the inland routes matters little, as by waiting for the tide plenty of water is always obtained for the class of cargo-boats or steamers that ply on Indian rivers. There can be no doubt that the Commissioners of 1867 were right in reporting False Point to be the best harbour on the whole Indian Peninsula between the Hugly and Bombay; and with the system of famine warnings detailed in the Statistical Account of Balasor, and in my general work on Orissa, I believe that it will afford an absolute guarantee against wholesale starvation by famine. If the crops fail, thousands of people will die in spite of any supplies that Government may throw into Orissa. But, worked in combination with the famine warnings, False Point affords a guarantee against that absolute absence of food throughout Orissa which followed the failure of the crops in 1866, and the mitigation of such a calamity becomes simply a question of expense and of machinery for internal distribution. Government is keenly alive to the necessity of keeping the port open, and checking any tendency which it may evince to deterioration. On two occasions, when visiting the harbour, the expediency of a dredging machine and of assisting the channels to scour by means of spurs, was pressed upon me by separate and competent persons. This and similar questions, however, may safely be left to the scientific surveyors. Government perfectly appreciates the importance of creating a really trustworthy port for Orissa; and the Marine Department has, during the past few years, devoted such close attention to False Point harbour, and is at present so anxiously interested in its welfare, that navigators may rest assured that whatever is necessary will be done.

Estuaries of the Brahmani.—The river system of Cattack District on the north of the Mahánadí consists of the network of channels formed by the Bráhmaní and Baitaraní, which, after infinite winding and interlacing, eventually re-unite, and find their way into the sea by two great outlets at Point Palmyras. The southern of these is the Maipárá River, with its tidal creek the Bansgarh which runs southward almost parallel to the coast till it joins the sea about six miles north of False Point harbour. The mouth of the Maipárá presents the usual obstacles of bars and high surf; and from its position on the south of Palmyras promontory it is inadequately protected from the monsoon. Between the months of November and March this last objection does not apply, and native craft from the Madras coast frequent it during the cold weather for the purchase of rice.

THE DHAMRA, or northern exit of the united Bráhmaní, Kharsuá, and Baitaraní, forms the boundary line between the Districts of Cattack and Balasor, but is within the jurisdiction of the latter. The latest Survey Report (dated 10th May 1870) places the Dhámrá first among the navigable rivers of Orissa. Its entrance is marked by the Kaniká buoy in twenty-one feet *reduced*, and by Shortt's Tripod beacon on the extreme north-east dry portion of Point Palmyras Reef. The entrance has greatly improved since 1866. The old outer bar with but nine feet of water remains, but a second outer channel with ten feet at lowest tide has opened about a mile to the south. From this to the inner bar no material change in the depth has taken place; but the inner bar, although improved of late, is constantly liable to alterations. In 1859 twelve feet were to be found on this bar; in 1866 only three; and this year (1870) there are eight. The water rapidly shoals from a minimum depth of twenty-one feet at the Kaniká buoy to six feet on the Central Sand. On the north of this, however, the new charts show a channel with a minimum of nine feet, and on the south there is another passage with water nowhere less than ten feet in depth, and in most places from thirteen to sixteen feet. Once through these passages the channels re-unite, and proceed inland with water from twelve to twenty feet, to the Kaniká iron beacon, where twenty-nine feet may be obtained. Proceeding nearly due west, the water again shoals from twenty to eight feet, and again gradually deepens till a depth of thirty feet is reached in the channel to the north of the eastern extremity of Kálíbhanj Island. After this, the difficulties incident to vessels going up are simply those of river navigation. Ships which can get within the southern outer channel, with its minimum depth of ten feet at low tide, find absolute protection from the monsoon. Notwithstanding its excellence as a harbour, the Dhámrá, owing to its distance from Cattack or any large centre of industry or population, has not been so much frequented by European craft as False Point; but larger numbers of native vessels resort to it for the Madras rice trade. At one time, indeed, it was contemplated to select the Dhámrá as the channel by which the whole canal system of Orissa should debouch upon the sea. This was before the formation of the East India Irrigation Company, which, after a most careful inquiry, wisely decided upon False Point as their basis of operations on the seaboard. Horsburgh treats Point Palmyras, at the mouth of the Dhámrá, only as a beacon for making the Hugly, and cautions vessels with regard to the necessity of hauling out into twelve or fourteen fathoms if they sight the eastern limit of the bank. He gives the rise of tide as from ten to twelve feet in the springs, and from seven to eight feet in the neaps. The latest Survey

Report, dated 13th May 1870, returns the tidal range at ten feet, with variations from a minimum of 6 feet 10 inches to a maximum of 10 feet 6 inches. It must be remembered that the depths in the channels given above are the reduced minimum at the lowest possible tide, so that the harbour, like all others along the Orissa coast, is practically available during flood tide to native craft, drawing considerably more water than that which I have mentioned. Brigs and Madras traders, drawing from ten to even eighteen feet, frequent the harbour with perfect safety.

The Dhámrá harbour, which was declared a port by Government Notification, No. 877, of the 18th May 1858, although forming an estuary of the river system of Cattack District, belongs, as already stated, to the jurisdiction of Balasor. As a port for native shippers, it ranks next to that of Balasor among the Orissa harbours. The following return of exports from 1860–61 to 1869-70 is incomplete, no account of the tonnage having been kept prior to 1868–69. The value of the exports was as follows:—In 1860–61, £11,268; 1861–62, £5641; 1862–63, £2393; 1863–64, £1315; 1864–65, £161; 1865–66, £935; 1866–67, the year of the great famine, *nil;* 1867–68, £114; 1868–69, £552, tonnage 398 tons; 1869–70, £4586, tonnage 2960 tons. No separate accounts of the imports of Dhámrá harbour seem to have been kept prior to 1867–68. During that and the two subsequent years, however, the value of the imports was as follows:—In 1867–68, £10,745, tonnage 1283 tons; in 1868–69, £10,713, tonnage 1407; and in 1869–70, £5433, tonnage 2573 tons. The Collector of Balasor estimates that during the famine of 1866–67, out of a total of 3505 tons of rice imported into that District for the relief operations, probably four-fifths were landed by means of the Dhámrá.

CONTROL OF THE WATER SUPPLY.—The great problem in Orissa is, how to prevent the rivers from destroying the crops during the rains, and how to husband them for agriculture and for commerce during the dry season. Five great rivers collect the drainage of 63,000 square miles of the hill country towards Central India, and dash down their concentrated floods upon the 5000 square miles of the Cattack and Balasor Delta. Besides its own rainfall of 63 inches a year, the level strip between the mountains and the sea has to find an exit for the drainage of a territory more than twelve times its own area. In the rainy season the rivers devastate the delta, while, like other Indian streams, they fail to yield a trustworthy supply in summer. An enormous mass of water, aggregating 2,760,000 cubic feet per second, is thrown down in time of flood; while in the hot weather the total supply dwindles to 1690 cubic feet per second, as the following table proves:—

Names of Rivers.	Catchment Basin, in Square Miles.	Maximum Discharge in time of Flood. Cubic Feet.	Average Cold Weather Discharge. Cubic Feet.	Minimum Discharge in May. Cubic Feet.
Mahánadí,	45,000	1,800,000	3,000	750
Bráhmaní,	9,000	400,000	1,000	380
Baitaraní, .	3,100	200,000	500	180
Sálandí, .	250	60,000	260	...
Subanrekhá,	6,000	300,000	600	380
Total, .	63,350	2,760,000	5,360	1,690

First Efforts.—In spite of this enormous Water Supply during the rainy season, Orissa has from time immemorial been visited by terrible famines from drought. But within the last twenty years there has been a growing conviction that it is the duty of Government to take measures against the recurrence of these calamities. Nature showers down plenty of water; it is for man to husband and to control the supply. The first work in this direction was at Naráj, about seven miles from Cattack City, where the Mahánadí debouches upon the delta and forms its first bifurcation. The work consisted of a spur sent out from the southern bank, with a view to diverting a portion of the excess flood which poured down the Koyákhái into Purí District. It dates from the year 1858; and the Irrigation Company, when it started four years later, recognised the necessity of commencing the regulation of the river at this point. Instead of a spur for the local purpose of checking the Purí Water Supply, the Company constructed a masonry weir, three-quarters of a mile broad, across the river-bed. It is to be connected eventually with a line of Embankments, which runs down the delta head, in order to prevent the waters of the northern branch of the Mahánadí from forcing their way across the level sands into its southern branch—the Koyákhái. The effect of these works, therefore, will be to regulate the southern branch of the Mahánadí at its point of bifurcation. The weir is furnished with sluice-gates, and to a certain extent it has already diverted the floods which used to pour southward into Purí District; while at the same time it secures a due supply for the northern branches of the Mahánadí, and for the canals that proceed northward and eastward from them.

Canals.—The Orissa canals are intended both to regulate the Water Supply for irrigation, and to utilize it for navigation and commerce. From the point at which the Mahánadí pours through the

Naráj gorge upon the plains, the fall averages 1½ foot per mile across the delta to the sea. In the Godávarí District, I am informed by the engineers that the slope is only about one foot per mile, but the excess fall in Orissa is, as in the Godávarí, easily overcome by locks. The first thing to be effected was to secure a uniform and a trustworthy supply at the head of the delta. To this end, in addition to the weir at Naráj across the southern channel at the first bifurcation, a massive weir 1¼ mile broad has been thrown across the Mahánadí proper at Jobrá, just below Cattack, and another, three-eighths of a mile broad, across the Birúpá at Chaudwár. Each of the three branches into which the parent stream splits at the delta head is therefore regulated by a weir. These works are pierced with two sets of scouring sluices, one of which is on an improved self-raising principle. Their objects being to prevent the accumulation of sand in the river-bed, and to secure a supply of water for the canals, they are left open during the flood season, and closed as the river subsides. The Government bought the whole canal works from the Irrigation Company, on the 31st December 1869, for £941,368, and the capital Account up to 31st March 1871 amounts to £1,274,822, including the original price paid in 1869.

THESE CANALS are four in number; viz. (1) the High Level Canal, (2) the Kendrápárá Canal, (3) the Táldandá Canal, and (4) the Máchhgáon Canal, with their respective distributaries.

THE HIGH LEVEL CANAL is designed to provide a great trade route between Cattack and Calcutta, and to irrigate the country through which it passes. Until its completion, it would be premature to pronounce on the commercial aspects of the undertaking; and the following remarks apply only to the sections of it which lie within Orissa. By the time that I come to write the Statistical Account of Midnapur, in which District its last section debouches upon the Hugly River, it will probably have reached a stage when I can safely treat of it as a whole. According to the present estimates, the High Level Canal will irrigate over half a million of acres between Cattack City and Balasor alone. Of these, 89,000 are situated along its first Section, *i.e.* between its starting-point at Cattack and the Bráhmaní River; a tract which lies high, and is subject to constant scarcity from drought. The second Section will irrigate a total area of 230,000 acres between the Bráhmaní and the Baitaraní Rivers, crossing the Kharsuá on its route. The third Section will irrigate the land between the Baitaraní and the Sálandí, about 100,000 acres; and the fourth Section between that river and Balasor, 153,000 acres more. Total, 572,000 acres.

ITS ROUTE.—The High Level Canal starts from above the weir

across the Birúpá, one mile below its offtake, the Mahánadí, and will eventually proceed through Cattack, Balasor, and Midnapur Districts, till it debouches upon the Hugly, at Ulubáriá, 15¾ miles below Calcutta. Its total length will be about 230 miles, but only the first and last sections have been completed. Of the fifty-two miles from Midnapur to Ulubáriá, twenty-five are now opened, and the remainder will be ready both for traffic and irrigation in about eighteen months. At the Cattack end the first twenty-five miles were opened in 1869, and other eleven are just finished (1871). These thirty-six miles span the country between the canal head, near Cattack, and the Bráhmaní River.

The weir across the Birúpá, from which the canal starts, is 1980 feet from abutment to abutment. The crest of its breast-wall is 63·5 feet above mean sea-level, or eight feet above the bed of the Birúpá. It has scouring sluices at each end, either set being capable of discharging, during six months of the year, the whole flow of the Birúpá. While the High Level Canal starts from the left flank of this work, the Kendrápárá Canal starts from its right; and the current produced by the scouring sluices at each of its extremities keeps the mouths of both the canals free from silt. The High Level Canal skirts the high grounds to the west of the Calcutta road for twenty-three miles, in which are four and a half miles of rock cutting, as far as the village of Neulpur. Here it leaves the road, and comes upon the Bráhmaní, in its twenty-seventh mile, whence it keeps along the south bank of the river as far as the village of Jahánpur, where it will cross the Bráhmaní by means of an anicut. The dimensions of the canal in this section will ultimately be as follow:—120 feet wide at water-line, with a maximum depth of eight feet; side-slopes two to one, and a fall of one inch per mile, conveying 675 cubic feet per second. The head sluices at the Birúpá anicut are capable of supplying 675 cubic feet of water per second, when there is a depth upon the cill of eight feet. The bed of the Bráhmaní is eight feet below that of the Mahánadí at the respective weirs, and this difference is overcome by a lift-lock in the 27th mile; while flood-gates are provided at the 36th, to prevent the freshes of the Bráhmaní during time of flood from backing up into the lower reaches of the canal. The first section of the canal was opened in May 1869, for a distance of 25 miles; Neulpur, a village on the Trunk Road, 23 miles from Cattack, being selected as the temporary terminus. In autumn 1871, the opened part was extended to the Bráhmaní, and the two next sections as far as Bhadrakh were begun.

Irrigation Capabilities.—This first Section, between the Birúpá and the Bráhmaní, will irrigate its 89,000 acres by means of seventeen

distributary channels, differing in capacity, but aggregating a length of 113 miles. The width of the water surface in these distributaries varies from ten to twenty-six feet, the depth from two to four feet, and the fall from six to eighteen inches per mile. The land lying between the Birúpá and Gengutí Rivers will be irrigated by means of a syphon, carried under the bed of the latter stream.

Cost up to 1st January 1869.—The High Level is intended as a first-class canal, both for irrigation and navigation. The total expenditure on it up to the 31st December 1868, when it was taken over from the East India Irrigation Company by Government, was £45,878; outlay between 1st January 1869 and 31st March 1871, £58,606; total, £104,484. Land irrigated in 1870–71, 22,035 acres, at 2s. per acre.

The Kendrapara Canal starts from the right flank of the Birúpá anicut, and proceeds along the northern bank of the Mahánadí and its distributaries the Chitartalá and the Nun, nearly due east to Mársághái, twenty-three miles from False Point. Its route lies along the high ground on the north bank of the Mahánadí till about the eighth mile, at which point the Chitartalá branch diverges to the northward from the great river. The canal therefore keeps along the north bank of the Chitartalá till near the eighteenth milestone. At this point the Nun diverges to the north from the Chitartalá, and the canal proceeds along the north bank of the Nun till it drops into tidal waters at Mársághái, after a total length of 42½ miles. The canal was opened from end to end on the 29th May 1869.

Head Works and Capacity.—The head lock at the Birúpá weir is 100 feet from cill to cill, and 17 feet wide. The cills are 59·5 feet above sea-level, and the gates 18½ feet in height. The canal is divided into seven reaches, with a width at water-line varying from 75 to 160 feet, a uniform depth of seven feet, a fall ranging from 0 to six inches per mile, and a minimum capacity of discharge varying in the different reaches from 340 to 740 cubic feet per second. This is the discharge available for the cold weather crops, when the water above the anicut is maintained at only 64·5 feet above mean sea-level, giving but five feet of water in the canal. During the rains the canal's capacity of discharge varies in its different reaches from 340 to 2000 cubic feet per second. The total fall of the canal from Jobrá to Mársághái is sixty-four feet, the levels being adjusted by means of eight locks, the last of which is a tidal lock at Mársághái, with a fall of ten feet, the upper cill being six feet above mean sea-level, and the lower cill four feet below. At low water, spring tides, there will always be three and a half feet of water on the lower cill. At Mutri, in the thirty-seventh mile, there is an escape

or waste weir capable of discharging 360 cubic feet per second. Six syphon culverts have been led underneath the canal; and four traffic bridges, in addition to the lock bridges, have been constructed across it.

IRRIGATION CAPABILITIES.—The Kendrápárá Canal is designed to irrigate 385 square miles of country. Of this large tract less than two-thirds of the area will require simultaneous irrigation, and the canal will therefore convey water for only 234 square miles, or 150,000 acres. A branch canal is projected to Patámundí, which will start from the Kendrápárá one at Sátbátíyá in the fourth mile, but it has not yet been commenced. The Patámundí branch will be available both for navigation and irrigation; its estimated irrigable area being 295 square miles. Meanwhile, from the Kendrápárá Canal, fifteen distributary channels, of which thirteen have been completed, will irrigate two-thirds of the total area commanded by it. These fifteen distributaries aggregate a total length of 180 miles of main and branch channels.

COST UP TO 1ST JANUARY 1869.—The Kendrápárá Canal is used both for navigation and irrigation; and its total cost, inclusive of distribution works, to the 31st December 1868, when it was taken over by Government from the East India Irrigation Company, was £61,328; outlay between 1st January 1869 and 31st March 1871, £40,495; total, £101,823. Land irrigated in 1870–71, 69,670 acres, at 2s. an acre.

THE TALDANDA CANAL will connect the city of Cattack with the main branch of the Mahánadí within tidal range. It is intended both for navigation and irrigation; total length, fifty-two miles. Of these, the first seven, or from Cattack to Bírbátí, were filled with water on the 2d February 1870; and the next or Jayapur section was completed in the first half of 1871 as far as Sonpur. Beyond Jayapur operations have not yet been commenced (January 1871); but the canal, when completed, will end at Sámágol on the Mahánadí, about eight miles as the crow flies from the sea, but considerably longer by the river route. The canal starts from the right flank of the Mahánadí weir at Jobrá, skirts the east side of the town of Cattack for a mile and a half, then turns eastward and runs midway between the Kátjurí and the Mahánadí for four miles; thence to Bírbátí it keeps nearly parallel with the Mahánadí at a distance of from half a mile to a mile. Bírbátí is reached in the seventh mile; and here, as I shall afterwards explain, it will throw out a branch canal to Máchhgáon at the mouth of the Deví River. Meanwhile the parent canal keeps along the high ground on the southern bank of the Mahánadí, until it reaches its destination at Sámágol within tidal range.

DIMENSIONS AND IRRIGATION CAPABILITIES.—The Táldandá Canal in its first reach to Bírbátí, which was completed in 1870, has a

bottom width of 64 feet, with slopes of 2 to 1, and a fall of six inches to the mile. With a maximum depth of eight feet of water, the discharge is calculated at 1460 cubic feet per second, half of which will be carried off by the projected Máchhgáon Canal, leaving 720 feet per second to the lower reaches of the parent channel. None of the distributary channels have been completed (January 1871), but it is estimated that the first reach of seven miles to Bírbátí will irrigate 30 square miles, or 18,000 acres. This reach was opened for traffic in 1870. In addition to the bridge at the head lock, three others will span the canal within the first few miles. Cost up to 31st December 1868, £17,713; ditto, 1st January 1869 to 31st March 1871, £13,832; total, £31,545.

THE MACHHGAON CANAL will connect Cattack with the mouth of the Deví River. It starts from the Táldandá Canal at Bírbátí, and will be supplied with half of the maximum discharge of the parent channel, or 720 cubic feet per second. It was opened in the first half of 1871 as far as Singápur, to which point its route lies along the high ground on the northern bank of the Kátjurí. At Singápur it will be carried across the branch of the Kátjurí which falls into the Mahánadí at Jayapur; and the canal will eventually end at Máchhgáon on the Deví River within tidal limits, and eight miles as the crow flies from the sea. With regard to this estuary, see the foregoing description of the Deví in this Statistical Account. Cost up to 31st December 1868, £1030; ditto between 1st January 1869 and 31st March 1871, £9279; total, £10,309.

GENERAL VIEW OF THE ORISSA CANALS.—While, therefore, the now completed portion of the High Level Canal starts northward from the Birúpá, and provides a navigable channel between that river and the Bráhmaní, with irrigation for the upland country along the foot of the hills; the Kendrápárá Canal proceeds due east along the high banks of the Chitartalá, etc., and supplies water to the lower levels of the delta. It irrigates the southern edge of the tract between the Mahánadí (with its subsequent distributaries, the Chitartalá and the Nun) and the Birúpá (with its continuation the Bráhmaní). The Táldandá and the Máchhgáon Canals will deal with that part of the delta which lies between the Mahánadí and the Kátjurí; the Táldandá Canal supplying irrigation for the northern edge of this intermediate tract, and the Máchhgáon Canal providing it for the southern edge. All the canals keep on high levels. In the case of the Calcutta Canal, or, as it is pre-eminently termed, the High Level Canal, the channel runs along the uplands at the foot of the hills. In the case of the other three, which are strictly speaking delta canals, the requisite elevation is obtained by keeping their courses along the banks of the rivers, which, as already

fully explained, are always higher than the intermediate deltaic tracts. Any particulars with regard to the commercial aspects of the undertaking would, as already stated, be premature in a Statistical Account which deals only with accomplished facts. I have therefore treated of this branch of the subject in my general account of Orissa. But the value of the canals for irrigation was last year (1870) publicly realized, and it may be well to state the initial results.

IRRIGATION CAPABILITIES.—The Orissa husbandman has been accustomed to use irrigation only for the more costly sort of crops, such as pán-leaf, sugar-cane, tobacco, and cotton. For such crops a field is generally selected which has the command of a natural watercourse; and the highest form of irrigation known in Orissa consists in throwing water, by means of hollow palm trees or basket scoops, from a tank or dammed-up stream, on to the fields. The East India Irrigation Company fixed the rates for supplying water at ten shillings an acre. The rate proved to be too high, and a graduated scale was afterwards introduced, by which leases for large areas were offered at reduced rates. Even this failed to induce the cultivators to buy the water; and a further concession was made, by which the separate husbandmen in a village might combine to take a general lease for their aggregate lands at the reduced rates. Much confusion and many abuses followed, and practically the Company's rates were reduced to a uniform charge of five shillings an acre. The first year in which the cultivators availed themselves of canal irrigation was 1866–67, when leases were executed for 667 acres at a total charge of £252. Of this, however, only £62 could be collected, and the rest had to be written off as a bad debt. Next year, 1867–68, leases were executed for 1842 acres, at an aggregate charge of £366; but only £175 could be collected, and the balance had again to be written off. The remissions of these two years were rendered necessary partly by the unfinished state of the works, which disabled the Company from performing its share of the contract, partly by the inexperience of the Government officers, and partly by disputes on the part of the cultivators touching the validity of the leases. A large area was irrigated by stealth, and the smallness of the returns was chiefly owing to the difficulties incident to introducing anything new in Orissa. These returns cannot, therefore, be taken as a test of the revenue capabilities of the canals. In 1868–69, a drought at the end of the rains awoke the fears of the husbandmen, and water was taken for 9378 acres, at an aggregate charge of £2288. The popular apprehensions culminated in a panic; and the demand for water became so urgent, that it was found impossible to comply with the usual forms, and irrigation was granted in many cases without leases. In

others the husbandmen appropriated wholesale on their own account. However, after some opposition, the land which had actually received water was measured, and the people have paid, on the whole, very fairly for what they took. This year (1870–71), a long-protracted drought thoroughly aroused the cultivators to the folly of neglecting irrigation. Until far on in October it seemed that another famine in Orissa was inevitable. Still the people thought five shillings an acre too high a rate; and it was not till the Commissioner, Mr Ravenshaw, by insisting upon the terrible risks that the Province ran, induced Government temporarily to bring down the rate to two shillings an acre, that water was taken on a great scale. Between 98,000 and 100,000 acres were immediately put under irrigation; and even this amount of land, although insignificant compared with the future capabilities of the canal, would have sufficed to take the extreme edge off a famine. It represents a total out-turn of about a million and a half hundredweight of paddy, or 750,000 hundredweight of rice. The political aspects of the subject are treated of in my general account of the Province. The Irrigation Company fixed its rates for Orissa from a consideration of those paid in Madras and the North-West Provinces; and it was forced to fix them at the maximum, as the Secretary of State had ordered that the rates, when once fixed, were never to be altered. The future of irrigation in Orissa seems to depend upon accustoming the people to use the canal water by means of low rates. When they have learned how to make the most of the water, they will be both able and willing to pay gradually enhanced rates.

General Statistics.—Although the foregoing pages treat only of the Canals within Orissa, the general Canal System includes two others; viz., the Midnapur and the Tidal Canal. Both of these lie within the Midnapur District; but as the cost of head-works and other general charges apply to the whole canal system, it is necessary to briefly refer to them here. The Midnapur Canal is intended to provide water communication between Midnapur and Ulabariá: twenty-five miles of it have been already opened. The Tidal Canal runs from the Rúpnaráyan river to Rasalpur, twenty-seven miles being now opened for traffic. The total expenditure upon the whole of the canals up to the 31st March 1871 is as follows:—Price paid on 31st December 1868, when all the canals were taken over from the East India Irrigation Company by Government, £941,368; outlay between January 1st, 1869, and March 1st, 1871, £333,454; total, £1,274,822.

With the works in their present unfinished state, it is needless to hazard any speculation as to the yield of the canals. No estimate whatever can be formed of the traffic until they are opened from end

to end. Still more would any estimate as to their irrigation revenue be out of place. The disjointed sections already opened yielded the following sums in 1869–70 and 1870–71. In 1869–70, irrigation revenue, £5796; traffic and tolls, £2134; miscellaneous receipts, £1429; total, £9359. In 1870–71, the irrigation revenue amounted to £17,400; traffic, £3883; miscellaneous, £1533; total, £22,816. It must be noted, however, that owing to the sudden demand for water, and the undeveloped state of the arrangements, a considerable balance of the irrigation revenue remained uncollected at the end of each year. The traffic returns for the whole of the canals in 1870–71 were as follows:—Number of miles open, 124; number of boats which used the canals, 24,271; tonnage of goods carried through them, 208,628 tons; approximate value of goods conveyed, £1,122,164. The only canal in Orissa finished from end to end is the Kendrápárá Canal; but until the general network with which it communicates is completed, its returns are necessarily less than they will be. Moreover, of the 385 square miles, or 246,785 acres, which it will eventually be capable of irrigating, only 95,000 acres are yet commanded by the existing distributaries; and of these 95,000, only 69,670 are yet irrigated. Under all these disadvantages, the canal in 1870 earned eight per cent. upon the money actually expended on it. Thus: Total cost, £101,823. Revenue: irrigation, 69,670 acres at 2s. an acre, £6967; traffic, 3860 boats, yielding £1149; total revenue, £8106. This does not include petty receipts under the head of Miscellaneous; but, on the other hand, it does not show the working expenses, and it assumes that the whole irrigation revenue is collected. Nor is the cost of head-works taken into account, as that belongs to the general Canal System, and cannot be included in the accounts of the only disjointed fragment yet completed. Any estimate of the permanent interest which the canals will yield can at present be only guess-work. The analogy of the adjoining delta to the south, the Godávarí, is however most encouraging.

Embankments and Control of Floods.—The five rivers, shown in a previous table, whose total discharge dwindles to 1690 cubic feet per second in the month of May, dash down 2,760,000 cubic feet of water per second in their floods. This is considerably more than twice the total discharge which the Ganges distributes all over Bengal, Behar, and the North-West Provinces during its maximum floods. It is obvious, therefore, that the immense volumes of water thus concentrated upon the comparatively small Orissa delta must spread over the country in a manner which has hitherto defied control. From time immemorial, defensive works of the nature of embankments have existed along the sides of the rivers. But such works have hitherto

failed to protect the low levels lying between the various deltaic channels. For particulars regarding Purí and Balasor, see my Statistical Accounts of those Districts, with my general volume on Orissa. In Cattack District, the Collector reports that there are 680 miles of Government and private embankments, which endeavour to regulate thirty-five rivers or distributaries. On the construction and repairs of embankments within Cattack Division, from the time we took over the Province in 1803 to 1831, and in Cattack District alone from 1831 to 1866–67, £157,676 have been spent. The inundation of 1866 broke through the Government embankments in 403 places, and at ten other parts that had been previously damaged, making a total of 413 breaches in one year and in the single District of Cattack. Of the thirty-five embanked rivers, not one escaped uninjured. Along a single one of them, the Chhota Bráhmaní, the flood burst down upon the surrounding country in no fewer than 74 breaches. The distributaries which suffered next to it were the Chhota Chitartalá, which suffered 37 breaches; the Burá Alanká, 31; the Kátjurí, 30; and the Mahánadí, 22 breaches. Out of ninety Fiscal Divisions in the District, only six escaped uninjured from this flood. Six hundred and forty-two square miles, or 411,120 acres, were submerged during a period varying from three to sixty days, the depth of water being from three to fifteen feet. A vast population of 699,803 were suddenly thrust out of their homes, and the Deputy Collector estimated the loss of paddy alone at 366,152 tons, representing, at the prices of 1865, £917,413. The Inundation Committee calculated the actual value at one-fourth less. At the prices ruling during 1866, the Famine Year, when the inundation actually took place, its value amounted to £2,173,564. Nor does this calamity stand alone. In 1855 the floods were deeper, although from the shorter period of their continuance they did not do so much harm. Besides the terrible losses thus sustained from a single flood, 33,309 acres, or 52 square miles, are reported by the Inundation Committee as being permanently left waste for fear of flood. Colonel Rundall, the highest engineering authority with regard to Orissa, believes these figures to be merely a fraction of the land left untilled for this cause; and besides the revenue thus lost, no less than £80,881 of Land-tax have been remitted in consequence of floods during the thirty-six years ending 1866–67. This, too, in spite of the outlay on the embankments having constantly gone on increasing. During the first twenty-nine years of which we have record, the expenditure averaged £1218 per annum for Cattack District; while during the last twenty-eight, ending in 1866–67, it has amounted to £2440. Again, during the first half of these latter twenty-eight years, the average expenditure was £878 a year; during

the third quarter it rose to £3264; and during the last quarter it reached the enormous sum of £4739 per annum. This brings us up to 1866–67, the year of the terrible inundation above described. Besides the loss of the fifty-two square miles left permanently waste for fear of flood, and paying no revenue to Government whatever, the cost of maintaining the embankments, added to the remissions of Land-tax in consequence of inundation, make a total of £157,559 during the thirty-six years ending 1866–67, or an average of £4376 per annum. This amounts to an annual charge of over 5⅓ per cent. on the Land-tax of the District. But even this does not represent the total loss. For during the same period there have been remissions of revenue amounting to £142,500 in consequence of droughts. Adding this to the above-mentioned charges for floods and protective works, we find that the uncontrolled state of the Cattack rivers have cost during thirty-six years £300,059. This is altogether independent of the large sums spent in relief operations during time of famine. The two items for remissions of land revenue and cost of protective works alone amount to an annual charge of more than 10½ per cent. on the land revenue of the District.

The embankment system as at present maintained has failed, therefore, in spite of the vast sums spent upon it, to afford security to the District. It has failed, indeed, so egregiously, that some of the Orissa officers despair of any system of embankments being successful. Without entering into controversial matters, I shall merely say that I do not share this view. During eight years the subject has been carefully studied and anxiously deliberated upon by the brilliant school of engineers at work on the Cattack Canals; and a scheme is at this moment being matured, which, it is hoped, will definitively subject the Water Supply of Orissa to the control of engineering science.

Uses to which the Water Supply is put.—Owing to the absence of harbours, no lucrative river traffic has hitherto developed in Cattack District. As in all deltas, the rivers are the high roads, but their use is for the most part confined to the internal distribution of commodities; the single article of commerce which they carry in quantity to the seaboard being rice. No effort has been made to use the water-supply as a motive power for mills. Since the Government abandoned salt-making, seaboard industries have practically ceased to exist, and the dearness of salt forbids the development of what would naturally be a great source of wealth to the Province, viz. its fisheries. The rivers and maritime creeks abound with the most excellent fish, yet the whole rent for fisheries paid to Government amounts to only £800. The Government rental, however, by no means represents the actual value

of the fisheries to the owners; but anything like an adequate development of this most important of the natural resources of Orissa is impossible while salt remains at its present rates. Were it not for the high salt-duty, all the lower reaches of the rivers would be seats of large fishcuring establishments. At present, large quantities of fish are sent up into the interior, but they generally reach the villages in a state of putrefaction. A little salting is attempted even at present; but the restrictions on the salt manufacture, the multiplicity of forms which have to be gone through even when a pass has been obtained, and the vexations attending the transit of salt, render it impossible for the illiterate fisherman to keep a stock of the article without subjecting himself to troublesome surveillance. The Collector reports that the number of people living exclusively by fishing or by navigation is very small; so small, that he refuses to hazard a conjecture as to their proportion to the total population. A detailed account of the river fisheries of Orissa may be found in Dr. Day's Report, published in the supplement to the Gazette of India, 29th May 1869. I refrain, therefore, from entering into further particulars, merely premising that Dr. Day seems to omit from his calculations the fisheries in the tributary estates on the coast, which are the most valuable of all.

LINES OF DRAINAGE.—In the west of the District, where the mountains slope down to the plains, the lines of drainage are sufficiently marked by the great rivers and their tributaries. In the delta proper the low levels lie, not along the river-courses, but in the valleys midway between the rivers. The most important line of these deltaic lines of drainage is that between the Mahánadí and the Bráhmaní. The surface-water here gathers into a series of marshes, with occasional lakes, and eventually finds its way to the sea-coast by the Gobrí River, which runs near to Kendrápárá, and by the Gandakiyá. The shallower marshes are used for the *boro dhán* rice, of which there are ten principal varieties, viz.: *dubi*, *rávandá*, *harisankar*, *lanká*, *balunga-mardán*, *baitálpakhiyá*, *kaili*, *kantisiyáli*, *khurá*, and *khejuriyá*. About one-fifth of the whole District is cultivated by this marsh rice. It is a coarse, cheap, indigestible grain, used by the lower castes, or for home consumption by the small husbandmen. It grows in from three to six feet of water. No effort has been made to introduce the longer-stemmed varieties, which in Eastern Bengal yield a harvest in from twelve to eighteen feet of water, and any attempts to improve the cultivation are unknown.

NATURAL PRODUCTS.—Cattack District possesses no important revenue-yielding forests. Sál trees are found in Kila Sukindá, but they have not been brought in quantity into the market, or made to contribute

to the revenue. The eastern jungles along the coast support a good river trade in firewood, and posts for cottage-building. On the western side of the District, the mountainous jungles also supply fuel, which is floated down the Mahánadí. The largest of these hill estates, Darpan, yields a revenue of only £46 a year from this source. Resin, beeswax, and honey are also obtained, with the nux vomica tree (*kuchilá*), and a sweet-scented grass of marketable value (*bala*). The chief supply of the jungle products, especially tasar and lac, is derived from beyond the frontier of the District in the Tributary States.

PASTURES.—The regularly assessed parts of the District (Mughulbandí) are now too closely cultivated to leave any large spaces for grazing. The lower reaches of the rivers, however, pass through prairies covered with coarse grass, which stretch from the line where cultivation ceases, to that at which the Sundarbans and marine jungles begin. This is especially the case towards False Point and Point Palmyras, and extensive breeding grounds form an important item in the rental of such estates. The Kaniká property yields a revenue of £84 a year under this head, and Kujang about the same. Large herds of buffaloes and horned cattle are reared, a proportion of which find their way by Ulubáriá across the Hugly to Bengal; but the persons employed on the grazing-grounds form no appreciable ratio to the total population.

WILD BEASTS.—Tigers, bears, leopards, wild buffaloes, antelopes, spotted deer, hog deer, hyænas, jackals, foxes, and pigs, are found. Fish-eating and man-eating alligators abound in all the rivers or creeks, and grow to a very large size. Comparatively little loss of life is caused by tigers and leopards, as these animals are confined chiefly to the dense jungles on the coast, or in the hilly portion of the District, where the population is sparse, and where the deer and pigs supply them with sufficient food. The loss of cattle reported to the authorities from wild beasts is very trifling. In 1840, the rewards paid for the destruction of wild animals amounted to £9, 5s.; in 1860, to £6, 13s. 6d.; and in 1869, to £1 for wild animals and £3 for alligators. Previous to this latter year no rewards had ever been given for the destruction of alligators, nor have rewards ever been given for snake-killing. The reported loss of life from snake-bites, wild beasts, and alligators in Cattack District during the five years ending 1869 is as follows:—Snake-bites, 741; wild beasts, 470; alligators, 250—total, 1461; but the actual loss probably amounts to twice this number. The small game includes hare, pea-fowl, jungle-fowl, double-spurred fowl, black and grey partridges, snipe, many kinds of duck and teal, bar-necked geese, common green pigeon, and several kinds of doves. No trade

worth mentioning is carried on in wild beast skins; nor are the forest animals made to contribute towards the wealth of the District.

Population.—Several rough attempts have been made towards a Census of the District. Stirling in his Account, written about 1822, estimates the population of the Orissa Division (Cattack, Purí, and Balasor) at 1,296,365, of which Cattack District contained 440,784 souls. This Census was based upon an enumeration of the dwellings, allowing five persons to each house. The Revenue Survey of 1842 estimated the population of Cattack District at 553,073, and a subsequent attempt at a Census returned it at 800,000. In 1847 another estimate was made, showing a result of 1,018,979, or a population of 320 per square mile. Again, in 1855, another Census was attempted, which returned the population at 1,293,084. All these calculations, with the exception of the last, were made by simply counting the houses through the agency of the police, and assigning an average number of inhabitants to each dwelling. But in the last Census of 1855 special officers were appointed to test the results by counting the houses and their actual inhabitants in different parts of the District, and thus to ascertain the correct average for each dwelling. The result disclosed an average of slightly over five and a half inhabitants to each house, and gave a population, as above stated, of 1,293,084; the proportion of the sexes being 676,320 males, and 616,764 females, residing in 225,000 houses. No Census of the District by the simultaneous enumeration of the people has ever been taken. Mr. Ricketts, in his Report on the Districts of Midnapur and Cattack, published in 1858, considers the calculation of 1847 to be excessive, and the present Collector of Cattack (1870) does not think that absolute reliance can be placed in any of the foregoing estimates. He states that their accuracy would depend upon what the various police constables understood by the word *house.* He found, when taking an experimental Census of the chief Towns of the District in 1869, that great difficulty was experienced in making known the distinction between a house and an enclosure, even to a more highly educated class of enumerators; and any misunderstanding on this point, extending over the whole District, would materially affect the correctness of the returns. After the famine of 1865–66, returns of the surviving population were called for from the landholders, and the result showed a population of 1,072,463. The Collector thinks that this approximated to the truth, but the number has since increased. The population of the chief towns in the District, as shown in the Report on the Experimental Census in 1869, is as follows:—Cattack Town: males, 18,935; females, 18,345; total, 37,280; number of houses, 9018. Cattack Suburbs: males,

4666; females, 4490; total, 9156; number of houses, 2296. Total of Cattack Town and Suburbs: males, 23,601; females, 22,835; total, 46,436; number of houses, 11,314. Jájpur: males, 4491; females, 4689; total, 9180; houses, 2169. Kendrápárá: males, 5795; females, 6026; total, 11,821; houses, 2620. Jagatsinhpur: males, 2463; females, 2269; total, 4732; houses, 1770.

No records exist to show whether, in the numerous attempts at a Census, any distinction was made in the average number of inmates per house between the town and rural population, nor does the Collector think that any great difference exists. It is doubtful whether the average of inmates per house is greater in the towns than in the country, as town life has scarcely developed in Orissa, and anything like our crowded city existence is unknown. I have mentioned how prominently this strikes a stranger in the town of Balasor, where the streets and market-places are interspersed with rice fields and homesteads. In the two rural tracts of Cattack District where the Experimental Census of 1869 was taken—viz. Kaniká on the coast, and Chaushattipárá in the hilly northern frontier—the number of inmates to each house was greater than in the towns. In Kaniká the average was five, and in Chaushattipárá 5·1, while in the towns it varied from 4·5 to 4·1.

Ethnical Division of the People.—The inhabitants of Cattack consist of three races—Aboriginal, Indo-Aryan or Hindu, and Afghán or Musálmán. The aboriginal tribes here, as elsewhere, cling to their mountains and jungles. They chiefly consist of the Kandhs, Kols, and Savars (the latter being by far the most numerous), and are regarded by the orthodox Hindus as little better than the beasts of the wildernesses which they inhabit. Miserably poor, they subsist for the most part by selling firewood and the other products of their jungles; but a few of them have patches of cultivated land, and many earn wages as day-labourers to the Hindus. They form, in fact, an intermediate stage of destitution between the comparatively well-off tribes in the Tributary States (the stronghold and home of the race), and the Páns, Báuris, Kandrás, and other lowland castes, who now rank as the basest among the Hindu community, but who are supposed to be the remnants of the pre-Aryan people, from the similarity of their habits to those of the undoubted aborigines in the hill tracts. The great bulk of the Indo-Aryan or Hindu population consists of Uriyás, with a residue of immigrant Bengalis; Lálá Káyets from Behar and Northern India; Telingás from the Madras Coast; Marhattás from Central and Western India; Sikhs from the Panjáb; and Márwárís from Rájputaná. These immigrant castes live chiefly in the town of Cattack, and are regarded as temporary residents, although

born in the Province. A large number of Bengalis and Lálá Káyets have been settled in different parts of the District for seven or eight generations,—a period sufficiently long to warrant their being classed with the Uriyá population, but for the caste system which has stood in the way of their fusion. Several Sikh families have also settled in the interior. The Afghán or Musalmán population are the descendants of the northern soldiery who swooped down upon Orissa in 1558, and of subsequent Muhammadan invasions, along with the converts to Islam whom they made among the Uriyás.

No Immigration or Emigration, properly so called, takes place in the District. Large numbers of the Gaur and Chásá castes (herdsmen and cultivators) go to Calcutta for employment as upper house servants, palankeen bearers, or workers on the roads; but they all periodically return to their homes after an absence of about three or four years. The Telis (or oil-pressers) supply porters and carriers to Calcutta, but they seldom fail to return to Orissa when they have made a little money. The licensed recruiters also collect small parties of low castes as labourers for the tea plantations of Eastern Bengal, but very few of these return to the District.

Castes.—The following list exhibits the principal castes in Cattack, with their hereditary occupations. It is arranged, as far as possible, in the order in which they rank in popular estimation. (1) Bráhman, priests, numerous, generally poor, but sometimes well endowed with temple lands; (2) Kshattriya, military service, few, poor; (3) Baidya, emigrants from Bengal, hereditary physicians, but some now employed as Government servants, few, well-to-do; (4) Sikh, military service, few, rather poor; (5) Rájput, military service, some cultivators and messengers, numerous, poor; (6) Káyasth, clerks, bookkeepers, and Government servants, numerous, well-to-do; (7) Karan, clerks and Government servants, but some are also cultivators, numerous, well-to-do; (8) Khandáit, the old rural militia, now mostly cultivators, numerous, well-to-do; (9) Vaishnab, religious mendicants, held in esteem by the followers of Chaitanya, few, poor; (10) Sanyási, religious mendicants, few, poor; (11) Patrá, cloth-sellers, pretty numerous, and in middling circumstances; (12) Guriá, sweetmeat-sellers, well-to-do; (13) Putuli-baniá, spice-sellers, few, well-to-do; (14) Chásá, cultivators, the most numerous caste in the District, as indeed throughout all Orissa, some settled on fair-sized holdings, but most of them poor; (15) Gaur, milkmen and palankeen bearers, numerous, poor; (16) Barhái, carpenters, few, tolerably well-to-do; (17) Kámár, blacksmiths, few, well-to-do; (18) Bhandári, barbers, few, well-to-do; (19) Máli, gardeners, few, poor; (20) Thatári, braziers, well-to-do; (21) Darzí, tailors, few, well-to-do;

(22) Tánti, weavers, numerous, poor, considered stupid and pitied; (23) Kumbhár, potters, few, poor; (24) Teli, oil-sellers and oil-pressers, rather numerous, well-to-do; (25) Jogí, religious beggars, few, poor; (26) Bhát, beggars, few, poor; (27) Náyak, astrologers, few, poor, and despised; (28) Sonár-baniá, goldsmiths, rather numerous, well-to-do; (29) Keut, fishermen, poor; (30) Gokhá, fishermen, few, poor; (31) Dhobá, washermen, few, poor; (32) Suri (Sundi), spirit-sellers, few, well-to-do; (33) Chhukar, musicians, few, poor; (34) Chamár, makers of palm-leaf mats and toddy-sellers, few, poor; (35) Dom, basketmakers, few, poor; (36) Báuri, day-labourers, few, poor; (37) Mochi, shoemakers, few, poor; (38) Kandrá, day-labourers or village policemen, few, poor; (39) Pán, day-labourers, few, poor; (40) Hári, sweepers, few, poor; (41) Kandhs, (42) Kols, and (43) Savars, aboriginal tribes, a few of them cultivators, but for the most part living by the sale of firewood and other jungle products, or as day-labourers.

The above list shows the occupations which the castes ought to follow, according to their hereditary customs; but practically it is not now unfrequent for persons to forsake either wholly or partially their ancestral employment. The higher castes, as a matter of course, look upon these changes with disfavour, and decidedly prefer the old system, according to which every man was bound to follow his caste occupation, and which gave no opportunities to men of the lower classes to qualify themselves for positions reserved for their superiors. A general hankering after the occupations of the higher classes has arisen under our rule, not because such employments necessarily pay better, but on account of their having from time immemorial been associated with castes who rank well in public esteem. It is said to have resulted in a neglect of several trades and callings, very useful in themselves, but which, according to the custom of the country, are followed only by low castes.

THE CHASAS, or hereditary cultivators, are by far the most numerous caste; and, indeed, there is scarcely any other caste which, while following its own calling, has not adopted agriculture as an auxiliary means of livelihood. Not less than three-fourths of the whole population are engaged in husbandry. The people are, generally speaking, poor as compared with the population of Bengal; and the trading, or merchant, castes are better off than the cultivators.

THE BENGALIS, LALA KAYETS, and MUSALMANS, monopolised the principal offices of State under the Muhammadan and Marhattá governments, and continued to do so after the province had passed under British rule, until the vernacular of the country was substituted for Persian as the language of public business and of the courts of law. This

change enabled the Uriyás to compete with the strangers for official employment, and almost simultaneously it was authoritatively laid down that, in selecting candidates for the Government service, preference should be given to natives of the province, if they possessed equal qualifications. The Uriyás thus obtained a fair chance, and the lower ministerial offices are principally in their hands. The higher executive posts, such as those of Deputy Magistrate and Collector, are still, however, monopolised by Bengalis and other immigrants. This is little satisfactory to the natives, but the latter generally admit that the Bengalis have had the start of them in education and enlightenment. In 1869 an attempt, fortunately unsuccessful, by some of the Bengali party to get their language practically substituted for Uriyá in the schools gave rise to some bitterness. But, with this exception, a good feeling is maintained between the different races and castes in the District.

Religious Division of the People.—The population consists almost entirely of Hindus and Muhammadans. No statistics exist showing the proportion of each, but the Collector estimates the Musálmáns at one-eighth and the Hindus at seven-eighths. My own inquiries lead me to believe that the Musálmáns do not exceed one-fourteenth of the total population of the whole District, but they muster strong in Cattack City. The vast majority of the Hindus are Vishnu-worshippers, but almost all the Bráhmans are Sivaites. The worshippers of Kálí, one of the forms of the wife of the All-Destroyer, are few in number, and, speaking generally, are found only among the Bengali settlers. The Bráhma Samáj, or Theist Assembly, numbers about forty members in Cattack City, but has made no progress outside the town. The Samáj was established in 1856. Its first church soon scattered, but was re-established in 1858. In 1869 a second Samáj was founded, the principal doctrines being the same as those of the older sect, but more practically applied as rules of life. The older Samáj is composed almost entirely of Bengalis, and their religious services are conducted in that language. The new sect carries on its services in Uriyá, and issues a monthly paper printed in that character. Both institutions were established by Bengali gentlemen, and the pastors make their living by some secular vocation, receiving no stipend for their ministrations. The reformed faith is not regarded in Cattack as a distinct religion from Hinduism, and its professors occupy the position belonging to their different castes, irrespective of their religious persuasion. The social status of a person still depends more upon the caste he belongs to than on his creed, or anything else. Education, wealth, and official position go far towards securing rank; but if not conjoined with good caste, the respect paid is

forced rather than voluntary. Singularity on points of religion does not affect a man's position in society, unless he becomes an apostate from the faith of his forefathers. The Jains, or modern Buddhists, have a little settlement of fourteen members in the town of Cattack. They are found exclusively among the Márwárís and other traders from Northern India, and seldom or never make an Uriyá convert. In the rural parts they are unknown, and Hinduism reigns supreme.

THE NATIVE CHRISTIANS (Baptists) number 1712 souls, including 658 children who were rescued from the famine of 1865–66. As a rule, they are despised by the Hindus and Musálmáns; but individuals among them extort respect by their high character, combined with wealth or official position. Two peasant settlements of Christians have been founded by the Cattack Mission, one at Chhagán, a village in the Tributary State of Athgarh, but within a short distance of Cattack, on the opposite side of the Mahánadí; and the other at Khanditar, on the banks of the Kharsuá, about ten miles from Jájpur. These little colonies live entirely by agriculture, while the town Christians find employment as Government servants, or in connection with the Mission, or as menial servants or day-labourers. Generally speaking, the native Christians manage to earn just enough to secure a decent livelihood; although, on the one hand, there are some isolated cases of comparative affluence, and, on the other, some who have to be assisted out of the Mission funds. If the famine orphans are excepted, Christianity appears to have made but little progress in actually converting the people, but it has done much indirect good.

MUHAMMADANISM makes no progress whatever, although the famine contributed to add to its ranks in the same way as it did to the native Christians, some charitable Musálmáns having given shelter to deserted children, and brought them up in their own faith.

DISTRIBUTION OF THE PEOPLE INTO TOWN AND COUNTRY.—Cattack (*Katak*, one of the five *Royal Strongholds* of ancient Orissa) is the most important town in the District, and the capital of the Province. It is the centre of commerce, the seat of the principal Civil Court, and the headquarters of the Commissioner of Orissa. In 1825 it contained, according to Stirling, 6512 houses, and a population of about 40,000 souls. In 1869, according to the Experimental Census Report, the town and suburbs contain 11,314 houses, and a total population of 46,436, of which the details have been given on a previous page. For historical and social notices of the city, see my General Account of Orissa. Next in importance to Cattack is Jájpur, also described in that work, the headquarters of the Subdivision of the same name, and a noted place of pilgrimage. Under the Kesari dynasty, who succeeded

in 474 A.D., it formed for some time the capital of the Province, but before the eleventh century it had given place to Cattack. At present it contains 2169 houses, and a total population of 9180 souls. Kendrápárá stands third, and is likewise the headquarters of a Subdivision, and a place of pilgrimage, but of less importance than Jájpur. During the Marhattá rule, a magistrate (Fauzdár) was stationed here with a small force for the purpose of checking the depredations of the Rájá of Kujang, who for centuries preyed upon the surrounding country. It contains 2620 houses, and a total population of 11,821. Jagatsinhpur, at present the headquarters of the Subdivision of that name, was a place of considerable importance during the Marhattá occupation of the Province, but has now only 1770 houses, and a total population of 4732 souls. These are the only places in the District worthy of the name of towns, and indeed are the only ones containing a resident population of over two thousand souls.

The people of Cattack District, as indeed of all Orissa, evince no tendency towards town life. Nothing except necessity can induce them to quit their hereditary homesteads; and if so compelled, they prefer the humblest shed in the country to living in a city. They look down on the towns-people, and seldom intermarry with them, in part owing to a belief that the practices and habits of the city life are not so strictly in accordance with caste rules. The inhabitants of Jájpur and the surrounding country are supposed to be of a more litigious disposition than those in other parts; and the jungle communities along the eastern coast and in the hilly western frontier require a certain amount of tact to manage them. But, as a whole, the people are quiet and submissive; very ignorant of their rights or privileges; and passive under oppression, if clothed with the garb of authority.

THEIR MATERIAL CONDITION is gradually improving. Although it may be difficult to tell precisely when and how this improvement began, the evidences of it are numerous and unmistakeable. Good government and freedom from foreign invasion during the past half century gave them a start, and the prices of country produce have doubled during the past ten or twelve years. Nor is this rise the result of any falling off in the sources of supply, for the area of the land under tillage has increased during the same period. European piece goods, and other articles of comfort and luxury, have been imported into the District in much larger quantities than before. The vast sums expended in late years on the Irrigation and other large public works, have made money more plentiful, and the development of the export trade in grain and oilseeds has yearly contributed to the currency of the Province. This export trade, although of very ancient standing by the land route to Tamluk

and Ulubáriá on the Huglí, received a fresh impetus from contact with English enterprise which in 1860 began to open out the seaboard. At first, export trade had to contend against serious difficulties arising from the want of roads to the coast, and from the aversion of the petty proprietors to innovation of any sort. But the grain-growers soon came to understand their interests too well to be influenced by the landlords, and the construction of the Táldandá and Máchhgáon roads created facilities for the transport of produce. Fresh capitalists entered the field. The exports grew larger year by year, and carried away from the District the surplus grain upon which the people might fall back in the event of a failure of the crop such as that of 1865. There can be little doubt that the previous heavy exportations intensified the sufferings of that and the following year. The present Collector, after mature experience, reports to me as follows: 'Until the exceptional causes which preclude the country from being dealt with in the same manner as other countries can be removed; or, in other words, until its desiderata in the shape of communications are fully supplied; it may not be an illiberal policy to put such a check upon the export trade as may prove a sufficient guarantee against the country being drained of its reserve store.' The famine, however, had one good effect. The exceptional position and wants of Orissa have been anxiously inquired into. Several important schemes tending towards the amelioration of the condition of the people have been accomplished, the most important being the opening of water communication between Cattack and False Point, by means of the Kendrápárá Canal, described on a former page. Although these navigation and irrigation projects had been started before the famine, it is doubtful whether, had that calamity not intervened, the scheme would not have collapsed for want of funds. As it is, Government has now taken them over from the private company which commenced them, and their completion is only a matter of time.

THE DRESS of an ordinary well-to-do shopkeeper consists of a cotton waistband falling over the thighs (*dhoti*), a cotton shawl (*chádar*), and scarf (*gámchá*), all together worth about 3s. 4d. In winter-time a thick coarse cotton shawl (*giláph*) is worn. A Cattack peasant's dress consists of a waistband and cotton scarf of the value of about 2s. 3d., and for the winter a coarse mat wrapped round his body (*hens*). The clothing of a wealthy man differs from that of a poor one in quality, but not in quantity.

THE DWELLING of an ordinary shopkeeper costs about £1, 11s. 6d. to build: thus, four wooden posts, 2s. 6d.; six wooden rafters, 1s. 6d.; 200 bamboos, 6s.; string, 1s. 6d.; straw, 15s.; a pair of doors, 5s. The furniture in such a house generally consists of a brass platter

(*kansá*), value 4s.; a brass jar (*lotá*), 3s.; a brass cooking pot (*pital*), 2s.; a small brass plate (*tháli*), 4s.; four brass cups (*katorá*), 4s.; a stone mortar (*sila*), 9d.; a mill (*jántá*), 1s. 6d.; a knife (*panki*), 3d.; and a coarse mat (*hens*), 6d.;—total value, £1. Some of the larger shopkeepers have much more substantial dwellings, and a few have even brick-built houses. The dwelling of an ordinary well-to-do husbandman costs about 19s. 6d., as follows: four wooden posts, 2s. 6d.; three wooden rafters, 9d.; 100 bamboos, 3s.; string, 9d.; straw, 7s. 6d.; a pair of doors, 5s. This is the kind of house the husbandmen generally live in; but those of the poor landless classes and day-labourers are much less costly—in fact, mere hovels. The furniture in the house of an average cultivator consists of a brass platter, a brass jar, a small brass plate, a knife, and a coarse mat, the whole worth about five shillings.

THE FOOD of a shopkeeper in ordinary circumstances, having a family of five persons, would cost about sixpence three farthings per diem, or 17s. a month, and would consist of the following articles:—Rice, 6¼ lbs. per diem, 3d.; split peas and vegetables, 0¾d.; salt and oil, 1½d.; fuel, 0¾d.; turmeric, spices, betel-nut, and tobacco, 0¾d.; total, 6¾d. per diem. The living of an average cultivator, with a family of five persons, costs about 12s. 3d. per month, and comprises rice, salt, vegetables, oil, fuel, and a little tobacco.

AGRICULTURAL.—The staple crop of Cattack, in common with the other Districts of Orissa, is rice. The following is a list of the principal rice crops, with their varieties:—(1) Biáli, grown on high land, the banks of rivers, and on the outskirts of villages. It is sown broadcast in May and reaped in September, the soil in which it grows being called Dofasli, or 'two-crop' land. There are two distinct species of Biáli rice, the Sáthíyá and the Bara, each subdivided into many varieties. The Sáthíyá derives its names from the time it takes to come to maturity, which is believed to be exactly sixty days. A tradition relates that the Biáli rice was not made by Brahmá, the author of the Universe, but invented by the sage Viswámitra. It is accordingly considered less pure, and prohibited in religious ceremonies. The higher classes seldom use it, as it is a coarse grain, difficult to digest, and apt to bring on diarrhœa in stomachs unaccustomed to it. The chief subdivision of the Sáthíyá species is the Hárvasáthíyá; and the principal varieties of the Bara species are the Bakri, Inkri, Madiyá, Cháuli, and Jiraisáli. (2) Sárad rice is of a better quality, and includes two great species, the Laghu and Guru. The former is sown in May on comparatively high land, and is reaped in November. Its thirteen most important varieties are, the Chhota-champá, Motrá, Rangiasiná, Niyáli, Háruá, Lanká,

Bodla-champá, Sará, Nardá, Mánt, Bangri-panchi, Palásphul, and Bhutmundi. The Guru species of Sárad grows on low lands, being sown in May and reaped in November or December. Its twenty-one principal varieties are, the Kalájirá, Narsinhbhog, Surlí, Díwánbhog, Durgábhog, Nripatibhog, Madhu-málati, Bángar-mádhabí, Machhkantá, Dhalákeri, Kalákeri, Muktákeri, Gopálbhog, Nájukbadan, Ratan-churi, Makarkámudi, Daynágundi, Tulsiphul, Rangpakhiyá, Kalápakhiyá, and Champá. Some varieties are sown broadcast on low marshy ground; others are carefully reared in nursery fields, and transplanted stalk by stalk to higher and dryer soils. Ground covered with a foot of water gives a good crop; but the coarser sorts will grow in six feet, although all must be sown to begin with in solid land. For some, a soil having an admixture of sand (*Dorasá*), while for others a soil not sandy (*Mátál*), is best adapted. Some require to be sown early in the season, and others late. Certain varieties will not grow unless the land is thoroughly weeded, while others flourish in spite of everything. In order to provide against the uncertainties of the season, the husbandmen sow both the species which require flooding or which will not suffer from it, and those that will flourish with but a moderate rainfall. In addition to the twenty-one varieties above mentioned, the following eleven descriptions of Guru Sárad are sown broadcast on marshy lands, dry in the sowing time and hot season, but covered with from three to seven feet of water in the rains:—Rávaná, Lanká, Balungá-mardán, Harisankar, Dubi, Baitálpakhiyá, Kaili, Kantisiyáli, Khurá, Khejuriya, and Raktachandan. (3) Dálua rice, sown in February and reaped in May, a coarse, indigestible grain with short straw, grown principally along the sea-coast on marshy lands, and often requiring irrigation.

No improvement seems to have taken place with regard to the quality of the rice grown in the District, and the soil is thought to be unsuited for the growth of foreign varieties, although attempts have been made to introduce them. During the famine, Barmah seed was given to the husbandmen, but the experiment failed. Carolina paddy seed was also distributed among some of the landholders in 1868, with results far from encouraging. It is difficult to say whether this was, as supposed by the cultivators, owing to the unsuitability of the soil, or to want of knowledge on the part of those who used the seed.

THE EXTENT OF LAND UNDER RICE CULTIVATION has increased by nearly one-fourth during the last twenty years. A portion of this increase, however, is factitious, as large tracts of land were purposely allowed to remain uncultivated at the time of the Settlement in 1837, in order that they might be entered as waste by the Settlement Officer, and thus exempted from assessment, or assessed very lightly. As soon

as the Settlement was concluded, such lands were gradually put under cultivation.

Productive Powers of the Land.—An idea prevails among the people, that although the extent of land under cultivation has increased, yet that its productive powers have diminished; and the superstitious peasants attribute this to the anger of the gods at so much of the old pasture land for cows having been lately brought under the plough. The main cause is the constant working of the soil, which allows the land no rest. A field seldom lies fallow, and the rotation of crops, although not unknown in Cattack, is not systematically carried out. The great extent of pasture and of waste lands which has been brought under cultivation, may have tended to decrease the average yield from the soil; as such new lands are often of an inferior quality, and formerly were not deemed remunerative for tillage at all. Deficiency of labour is sometimes stated as another cause of the decreased average productiveness. While, on the one hand, the large and important Public Works now being carried on in Cattack have to a small extent withdrawn hired labour from agriculture, the increased amount of land under cultivation has, on the other hand, greatly increased the demand for it. In short, the land is just beginning to cease to be the only outlet for unskilled labour in Orissa. The land may suffer a little, but the labourers gain a great deal.

The different Stages of Rice Cultivation are as follows—the names generally consisting of a noun and verb, or of a verb with the word *dhán*, rice, understood. When the seed vegetates, it is called dhán gajá delá; when the sprout divides into two leaves, dui-patra; when the paddy begins to germinate in the stem, káni-thor; when fully germinated, thor-hebá; when the ears emerge from the stem, dhán-báháribá; when the rice flowers, phul uráibá, or hát karibá; at the end of the flowering, when a milky substance is generated in the stem, áhár dhukibá; when the kernel is just formed, kshír chául; when ripening, páchibá; when ready for cutting, katá-jibá—literally, it will be cut; when the grain is spread on the ground, and trodden out from the stem by a team of bullocks, benglá paribá; when winnowing, ura-jibá; when husked without boiling, aruyá chául; when husked after the seed has been loosened by boiling, usná-chául. The solid preparations of rice are: boiled rice, bhát, which is never sold; rice cakes, pithá, a few sorts of which may be sold; paddy boiled, afterwards slightly fried in the husk and then husked, churá, sold at about thirty-five pounds for two shillings; fried rice, hurum, a little over a penny a pound. A preparation made of unhusked rice slightly crushed and fried, khai, is sold at the same price. The liquid preparations of rice are: rice

boiled to the consistency of paste, jáu; rice boiled with milk and sugar, kshír, or kshírí; and mad, a distilled liquor made from rice, and sold at about a shilling a quart. The two first preparations are never sold.

THE OTHER CEREAL CROPS OF THE DISTRICT are: (1) Mánduá, a grass-like plant producing a coarse seed resembling rice, sown simultaneously with Biáli on the same description of land, and reaped in September. This grain is peculiar to Orissa, and not found in Bengal. It is used freely by the lower orders, who prefer it to rice as cheaper, and who even consider it more nourishing. The higher classes do not use it, and declare it difficult of digestion by unaccustomed stomachs. (2) Gaham (wheat) and (3) Jab (barley), sown towards the end of November, and reaped in February and March. These crops are grown on rather high land, and require a great deal of irrigation. (4) Chiná, a rice-like cereal, rather rare, sown about the end of November, and reaped at the end of January. (5) Suán, a rice-like cereal, not cultivated, but grows spontaneously in the paddy fields. It is used only by the lower orders. Indian Corn (Butá or Maká) has been omitted from the list of cereals, because it is scarcely cultivated in Cattack District. It is only grown in small gardens, and is eaten as a luxury in the green-ear, roasted, and not as an ordinary article of food. The Madras soldiers and camp followers in Cattack City are fond of it, but it is generally considered unwholesome.

THE PULSES grown in the District are: (1) But (gram) and (2) Chaná (peas), sown about the end of November, and reaped in February. These crops are grown on high land, and require irrigation, but are not common throughout the District. (3) Mug (phaseolus Mungo), (4) Birhi, and (5) Kolath (dolichus biflorus), sown in October, and cut in January or February. These are generally cultivated as second crops on Biáli and Mánduá land, but sometimes as the sole crop of the inferior one crop (ekfasli) pulse land. The heavy dews which fall during the cold season afford sufficient moisture, and rainy weather is injurious to such crops. (6) Harar of two kinds: (*a*) Chaitra Harar, called after the name of the Hindu month in which it is reaped. It is sown almost simultaneously with Mug and Birhi, and sometimes along with them in the same field; the Mug or Birhi being reaped first, and the Harar left standing till March or April, when it also is reaped. This description of Harar is extensively cultivated, and considered more wholesome than the other variety, namely (*b*) Náli Harar, which is grown on high lands, mostly around the homesteads; sown in June or July, and reaped in December or January.

THE FIBRES of Cattack District are: (1) Jute, sown in July, and

reaped in November, on moist lands along the banks of rivers; not a very common crop. (2) Hemp, sown in high lands in November, and cut in January and February. (3) Kápás (Uriyá, Kapá), Cotton, with its two varieties, Haldiyá and Achhuá. The first variety is grown mostly in the hilly parts of the District, being sown in June or July, and cut in October or November. The seeds obtained from this species produce in the plains the Achhuá variety, which is sown in December and reaped in July. For the Achhuá crop, Haldiyá seed from the hills is preferred. The pods of the Achhuá are larger than those of the Haldiyá of the plains, but those of the Haldiyá grown in the mountainous tracts are superior to either in the delta, the hill soil being much better adapted for the growth of cotton. Land newly reclaimed from jungle is the best for this crop. (4) Simul-tulá, a description of cotton growing on a large tree (Bombax heptaphylla). It is never cultivated, but grows spontaneously; and the cotton is largely used for stuffing pillows and mattrasses.

Miscellaneous Crops.—(1) Sarishá (mustard), sown in October, and reaped in January or February; grows well where silt is deposited. (2) Gab (castor oil), sown at the same time, and on the same description of land as Sarishá. It is generally grown as a second crop, but occasionally as a single one on land along the banks of rivers. The oil sells at about 3d. per pound, and is used extensively for lighting. (3) Phesi (linseed), sown in November, and reaped in February or March, as a second crop on Biáli and Laghu Sárad land. (4) Khasá (til seed, sesamum orientale) grows on high or dry land; sown in July, and reaped in January. It is extensively cultivated and largely exported, principally to the Madras Presidency. (5) Tamáku (tobacco) is sown in deposits of slimy mud in December, and cut in March or April: irrigation is required. It is largely cultivated, and consumed by the people in the shape of cheroots. (6) Akhu (sugar-cane) should be grown on high land secured from flood-water, which is injurious to the plant. Constant irrigation is required; and as the crop is a very exhausting one, it cannot be grown on the same land in successive years. It is sown in April or May, and cut in February or March. (7) Haldi (turmeric) grows on high land which has previously been left fallow for a year; sown in July, and cut in February or March. (8) Adá (ginger), grown on the same description of land, and sown and cut at the same time as turmeric. (9) Methi (trigonella fœnum), (10) Dhaniyá (coriander seed), and (11) Pánmahuri (himpinella anisum), are all sown in November, and reaped in January or February. (12) Piyáj (onion) and (13) Rasun (garlic) are sown in November, and reaped in January; require irrigation. (14) Pán (betel-leaf) is planted in July;

and after the plant reaches maturity, in twelve or fifteen months, the leaves are plucked twice a week. This valuable creeper, when once it has fairly taken root, yields leaves for fifty or sixty years. It requires more labour than any other crop, but is also more profitable. It must be constantly irrigated, and protected from the sun by a reed roofing; so that a pán garden is simply a vast low-built mat greenhouse, very steamy inside, but of a uniform temperature all the year round. An acre yields from £88 to £100, of which, however, from £50 to £75 represents the capital laid out by the cultivator, and the rent of the land. A fair profit to the husbandman is from £25 to £35 per acre.

OUT-TURN OF CROPS.—Official Records which represent the Agricultural State of the District in 1842, return the proportion of cultivated, cultivable, and waste lands as follows:—Under cultivation, 857,482 acres; cultivable, 94,357 acres; jungle and uncultivable, 866,486 acres: total, 1,818,325 acres, excluding 407,086 acres of land of which no detailed measurement had been made. Since then, however, a much larger extent of land has been brought under tillage. According to the Settlement Papers of 1837, the total crop of the District for one year amounted to upwards of six and a half million hundredweights, grown on 670,209 acres. Of this area, 458,696 acres were under rice, the crop of which weighed over five million hundredweights. At present, an acre of ordinary two-crop (Dofasli) land paying a rental of 6s. 3d. per annum will yield one bharan of unhusked paddy, equal to about ten hundredweights, worth thirteen shillings; and also a second crop of Mug or Birhi, weighing about three and a half hundredweights, and worth twelve shillings: total value of crop, £1, 5s. an acre. An acre of Sárad, or single-crop land, paying the same rent, will grow nineteen and a half hundredweights of paddy, worth £1, 6s. Two-crop land paying half the above rent gives a crop of Biáli and Mug valued at nine shillings. It will be seen from the above that one-fourth to one-third of the produce is paid as rent, the remaining three-quarters and the straw going to the cultivator for his capital and labour.

RATES OF RENT.—At the time of the Settlement in 1837, the rates obtained for the different descriptions of land on some of the most important estates in the District were as follows. The figures are gleaned from the tabular statements of the Settlement Papers:—In the Fiscal Division of Deogáon, tobacco land yielded a rental of from £1, 17s. 6d. an acre for first-class fields, to 6s. 3d. an acre for the eighth class. Two-crop land growing Biáli rice and Birhi is divided into no less than twelve classes, the rents for which varied from 9s. 4½d. for first-class to 1s. 6¾d. for twelfth-class land per acre. Land growing Biáli and mustard varied from 12s. 6d. for first-class to 3s. 1½d.

for fifth-class land; that growing Biáli and tobacco, divided into four classes, from £1, 5s. to 9s. 4½d. an acre. Sárad land, ten classes, from 7s. 9¾d. to 1s. 3¾d.; wheat and castor oil land, 3s. 1½d.; coriander, two classes, 9s. 10½d. and 3s. 1½d. per acre. In the village of Tulang, in the Fiscal Division of Khandi, the rates per acre for the different classes of land growing the most important crops were as follow:—Biáli and Birhi land, eight classes, from 15s. 7½d. to 6s. 3d. per acre; Mánduá and Birhi, nine classes, 15s. 7½d. to 6s. 10½d.; Mánduá and cotton, two classes, 11s. 10½d. and 7s. 7½d.; Sárad (winter-rice land), twelve classes, from 15s. 7½d. to 6s. 3d.; Biáli, twelve classes, from 9s. 4½d. to 1s. 10½d.; Mánduá, nine classes, from 3s. 10½d. to 9d. an acre. In the village of Muguriá, in the Fiscal Division of Bálubisi, rents for the more important qualities of land were as follow:—Mánduá and Kolath, twelve classes, from 12s. 6d. to 1s. 6¾d. per acre; Biáli and Kolath, twelve classes, from 12s. 6d. to 1s. 3d.; Mánduá and cotton, five classes, from 9s. 4½d. to 3s. 1½d.; Mánduá and Birhi, twelve classes, from 12s. 6d. to 1s. 3d.; Sárad, twelve classes, from 12s. 6d. to 1s. 6¾d.; Biáli, eight classes, from 6s. 3d. to 9½d.; sugar-cane, five classes, from 18s. 9d. to 6s. 3d.; tobacco, five classes, from 18s. 9d. to 9s. 4½d.; cotton, eight classes, from 6s. 3d. to 1s. 0½d. In the single village of Krishnapur, in the Fiscal Division of Asureswar, the rates per acre were: for Biáli and Birhi land, twelve classes, from 15s. 7½d. to 5s. 5½d.; Biáli and wheat, twelve classes, from 15s. 7½d. to 6s. 3d.; Biáli and mustard, six classes, 12s. 6d. to 6s. 3d.; Sárad, twelve classes, 12s. 6d. to 6s. 3d.; Biáli, ten classes, 12s. 6d. to 3s. 1½d.; Dálua, 6s. 3d. to 3s. 1½d.; tobacco, six classes, 14s. 6d. to 5s.; sugar-cane, six classes, 10s. 6d. to 6s. 3d.; mustard, nine classes, 9s. 4½d. to 1s. 6¾d.; turmeric, four classes, 12s. 6d. to 5s.; Birhi, twelve classes, 10s. to 3s. 6d.; Mug, twelve classes, 12s. 6d. to 1s. 6¾d. This was thirty-three years ago.

The rates of rent per acre at the present time for the very best qualities of Two-crop and December-rice land (Sárad), in each of the Fiscal Divisions of Cattack, are returned by the Inundation Committee as follows:—(1) Abartak, 15s. 7½d. for two-crop, and 12s. 6d. for winter-rice land; (2) Alti, 12s. 6d. for each description; (3) Anábartak, 9s. 4½d. and 7s. 6¾d. respectively; (4) Apilá, 9s. 4½d. and 9s. 4d.; (5) Asureswar, £1, 5s. and 18s. 9d.; (6) Atkhantá, 6s. 3d. for each description; (7) Bahurúpá, 4s. 8¼d. for each; (8) Bákrábád, 6s. 3d. and 5s.; (9) Bálubisi, 12s. 6d. for each; (10) Bárán, 4s. 8¼d. and 3s. 10¾d.; (11) Bárdiyálá, 7s. and 6s. 3d.; (12) Bárgáon, 9s. 4½d. for each; (13) Barpallá, 10s. 5d. and 9s. 4½d.; (14) Baruyá, 12s. 6d. for each; (15) Báutará, 9s. 4½d. for winter-rice land; (16) Benáhár, 12s. 6d. and

9s. 4½d.; (17) Cattack Hávilí, 7s. 0½d. and 9s. 4½d.; (18) Chaurdá Kolát, 9s. 10¾d. and 9s. 4½d.; (19) Chhedrá, 5s. for winter-rice land; (20) Dálijorá, 12s. 6d. and 13s. 9d.; (21) Dámarpur, 9s. 4½d. for each; (22) Deogáon, 9s. 4½d. for each; (23) Derábisi, 4s. 8¼d. for winter-rice land; (24) Dihi Arakpur, 13s. 4d. for each; (25) Gandilo, 9s. 4½d. and 15s. 7½d.; (26) Hariharpur, 12s. and 15s. 7½d.; (27) Hátimundá, 12s. 6d. and 9s. 4½d.; (28) Jájpur, 12s. 6d. and 11s. 3d.; (29) Jayanábád,. 10s. 7½d. and 12s. 6d.; (30) Jayípur, 15s. 7½d. for each; (31) Jhankar, 18s. 9d. for each; (32) Jodh, 9s. 4½d. and 7s. 6½d; (33) Kalámátiyá, 12s. 6d. and 8s. 1½d.; (34) Kanchikhand, 15s. 7½d. for each; (35) Karimúl, 15s. 7½d. for each; (36) Káte, 10s. 5d. and 9s. 4½d.; (37) Káyamá, 6s. 3d. for each; (38) Keruyálkhand, 15s. 7½d. for each; (39) Khandi, 15s. 7½d. for each; (40) Kila Al, 4s. 8¼d. and 4s. 2d.; (41) Kodindá, 12s. 6d. and 14s. 0¾d; (42) Kokuyákhand, 12s. 6d. for each; (43) Kuhundá, 10s. and 9s. 4½d.; (44) Kurniyá, 12s. 6d. and 9s. 4½d.; (45) Kusmandal, 12s. 6d. for each; (46) Kutabsháhí, 4s. 8¼d. and 4s. 2d.; (47) Manjuri, 9s. 4½d. for each; (48) Mátkadábád, 6s. 3d. and 9s. 4½d.; (49) Mátkadnagar, 15s. 7½d. for each; (50) Mutri, 5s. for each; (51) Máhákhand, 15s. 7½d. and 9s. 4½d.; (52) Neulbisí, 6s. 3d. for each; (53) Olash, 15s. 7½d. and 12s. 6d.; (54) Padampur, 9s. 4½d. and 12s. 6d.; (55) Palná, 12s. 6d. and 10s. 5d.; (56) Páendá, 12s. 6d. for each; (57) Pánikhand, 9s. 4½d. for each; (58) Patu Mahánadí, not given; (59) Sáhibnagar, 4s. 8¼d. for each; (60) Sáibir, 12s. 6d. for each; (61) Sáilo, 12s. 6d. and 10s.; (62) Swaraswatí, 12s. 6d. and 15s. 7½d.; (63) Sháhábád, 9s. 4½d. and 15s. 7½d.; (64) Shergarhá, 12s. 6d. for each; (65) Shujábád, 12s. 6d. and 9s. 4½d.; (66) Shujánagar, 9s. 4½d. for each; (67) Suháng, 12s. 6d. and 15s. 7½d.; (68) Suknai, 12s. 6d. and 15s. 7½d.; (69) Sultánábád, 7s. 0½d. and 4s. 8¼d.; (70) Sungrá, 15s. 7½d. for each; (71) Tapankhand, 15s. 7½d. and 12s. 6d.; (72) Tisániyá, 9s. 4½d. for each; (73) Tikan, 12s. 6d. and 9s. 4½d.; (74) Tiran, 12s. 6d. for each; and (75) Utikan, 12s. 6d. and 9s. 4½d. respectively.

CONDITION OF THE PEASANTRY.—The husbandmen of Cattack do not seem so badly off as those of Balasor District, although the holdings are generally very small. A farm of twenty-five acres or upwards is considered a very large holding; one of between ten and twenty-five acres a good-sized one; and anything much below ten acres a small one. Every respectable villager has a few acres, often not more than four or five, and the Collector estimates that small holdings of less than ten acres cover one-half of the total cultivated area of the District. Very few farms exceed twenty-five acres. Perhaps two such holdings may be found in a rural commune of four or five hundred families of

husbandmen. The standard by which a cultivator is judged does not consist so much in the extent of fields, as in the number of ploughs he can command. This, however, by no means represents correctly the worth of his farm, inasmuch as some kinds of crop, such as Biáli rice and sugar-cane, require much more ploughing than others. The amount of ploughing required also varies according to the nature of the soil, the land in low-lying parts not needing so much or so deep ploughing as in the higher tracts. In the case of a holding consisting of two-crop and one-crop land in fair proportions, six acres is supposed to represent what is technically called a 'plough' of land, that is, the quantity which a husbandman with one plough and a single pair of bullocks can cultivate. In the case of a farm consisting only of Sárad or one-crop land, one pair of bullocks would be able to plough eight, or in a low-lying situation, ten or twelve acres. A holding of twelve acres enables a Cattack cultivator to live quite as well as a respectable shopkeeper, or as a person earning sixteen shillings a month. His family can afford to eat more food than either of these two classes. One-half of the peasantry may be set down as really well off. One-fourth are in debt to the village money-lender or the landlord. The remaining one-fourth, who have very small holdings of from one to four acres, and who eke out a livelihood by hiring themselves as day-labourers to richer husbandmen, are just able to live. Able-bodied pauperism is unknown, except among the religious mendicants.

Classification of Husbandmen.—The cultivators of the District are composed of two classes—the Resident (Tháni) and the Non-Resident or Migratory (Páhi) husbandmen. At the time of the Settlement in 1837, the rights of the Resident Cultivators were formally recognised by Government, and secured to them by Palm-Leaf leases (tál-pattás). They hold their homestead lands rent free, and are not liable to be ousted so long as they continue to pay the rent assessed on their cultivable lands, nor are these latter rents liable to enhancement until the expiration of their leases, which run concurrently with the Settlement to 1897. At the time of the Settlement in 1837, 37,242 such leases, aggregating 163,721 acres of land, were granted. Since then, some of these Resident Cultivators' rights have become extinct, and a few others have been created by the landholders. The Non-Resident (Páhi) husbandmen, previous to the passing of the Land Law (Act X. of 1859), were mere tenants at will, except when secured in their holdings by special leases granted by the landholders. Under Act X. a large proportion of this class have acquired Rights of Occupancy. There is another small class of husbandmen, called Homestead Cultivators (Chandná rayats), who hold only homestead and

garden land. Some leases of this description were granted at the time of the Settlement, giving the holders equal rights with the Resident Cultivators, but the Chandná Cultivators generally hold land under the Non-Resident (Páhí) tenure. It must be remembered that 'Resident' and 'Non-Resident' have now become technical terms, and do not necessarily imply residence or non-residence in the village. The Collector estimates that the number of the Resident and Homestead husbandmen, or those whose rents are not liable to enhancement, may be taken at three-eighths of the whole body of cultivators; and of the remainder, or Non-Resident (Páhí) husbandmen, three-fourths may be supposed to have acquired Occupancy rights. The other tenures in the District are as follow:—(1) Resumed Rent-free lands, or those which were held rent free before the Settlement, but which, owing to the invalidity of the deeds, or to the absence of any documents at all, were resumed by Government at the time of the Settlement, and assessed lightly. (2) Tankíyá lands, or those for which nominal rents were paid before the Settlement, and which have since been held at quitrents. (3) Kharidájamá-bandi, or lands which were bought by the husbandmen from the landholders before the British took possession of the Province, and which, at the time of our Settlement, were found to have been held either rent free or at a merely nominal rental, and were accordingly assessed very lightly. The first and second of these three classes were treated as *rayatí* tenures, and the holders not only have a right to their lands without enhancement of rent, but can transfer them by sale or gift. Such tenure-holders are not generally actual cultivators, but either sublet their lands, or till them by means of hired labour. The tenure-holders would consider themselves degraded by following the plough.

THE LAND LAW.—The Settlement Record has left but little room for disputes about enhancement of rent under Act X. of 1859. The only lands liable to enhancement are those belonging to the Non-Resident husbandmen, for which no leases were granted by the Settlement Officers, and such leases of the Resident Cultivators as have lapsed from the holders dying without heirs or from other causes. The peasantry do not avail themselves much of Act X. for establishing Occupancy Rights, either from inability to cope with the landholders, or from the conviction that they consult their own interests better by conciliating than by defying their landlords. Act X. is therefore almost inoperative as an enhancement law, and the Collector reports that the rates of rent are the same as if it had not been passed.

THE DOMESTIC ANIMALS OF THE DISTRICT consist of cows and buffaloes, kept for milk; and oxen for the plough, or as beasts of

burden. The same bullocks are often used for ploughing during the rains, and as carriers of produce during the hot weather, when they are not needed in the fields. Herds of goats and sheep are almost unknown, but a brisk export trade takes place in horned cattle from the breeding grounds on the coast, *via* Midnapur to Calcutta. The trade has been of late on the decline, owing to the decrease in the amount of land left for pasture, and to cattle diseases described in my Statistical Accounts of Balasor and Purí. An ordinary cow in Cattack fetches £1, 4s.; a pair of oxen, £3; a pair of buffaloes, £8; a score of sheep, £8; a score of kids six months old, £2; a score of full-grown pigs, £12.

WAGES of agricultural day-labourers are generally paid in kind, and do not seem to have altered since 1850. Such wages were then about twelve to fifteen pounds of unhusked rice per diem, and the same rate continues at the present day, except when they are calculated according to the money value of the labourer's hire. All labour, however, paid by money wages has increased in price; and in the large towns, such as Cattack and Jájpur, field work is now frequently paid in this way. Agricultural labour is always paid at a lower rate than other unskilled work. Day-labourers, other than agricultural, now receive from 1¾d. to 2d. a day in the rural Districts, and 3¾d. in the towns; in 1850 their wages were slightly over a penny in the rural Districts, and 2¼d. in the towns. Smiths and carpenters now get 3¾d. a day in the country, and 6d. in the towns; in 1850 their wages were 2¼d. and 4½d. respectively. Bricklayers, who are only employed in the towns, earned 2¼d. a day in 1850, and now from 4d. to 6d. On the whole, it may be said that labour fetches double in the towns what it does in the country, and that, during the last twenty years, from 1850 to 1870, the rates of wages have risen from 35 to 40 per cent. The price of the best husked rice was 42 lbs. for 2s. in 1860, 39¼ lbs. in 1868, and 34 lbs. in 1870. Best unhusked paddy sold at 90 lbs. for the rupee in 1860, 84 lbs. in 1868, and 80 lbs. in 1870. Coarse rice, such as that used by labourers, sold at 86½ lbs. for the rupee in 1860, 63 lbs. in 1868, and 64 lbs. in 1870. The same paddy, unhusked, sold at 174 lbs. for the rupee in 1860, 130 lbs. in 1868, and 156 lbs. in 1870. Wheat stood at 48½ lbs. for 2s. in 1860, 42 lbs. in 1868, and 18 lbs. in 1870. In 1869 the priccs were higher than in 1868, owing to the partial destruction of the crops of that year (1868) by inundation. In the famine year the maximum prices reached were as follow:—Best cleaned rice, 7¼ lbs. for 2s., unhusked 14 lbs.; coarse rice husked, 8 lbs., unhusked 18 lbs.; and wheat, 8 lbs.

THE AGRICULTURAL IMPLEMENTS required by a small husbandman

with a holding of one 'plough' of land, or about six acres, are a pair of oxen, a plough (nángal), harrow (mai), weeder (bidá), two sorts of spades (kánk and kuri), a sickle (dá), a hatchet (katuri), and an iron instrument for digging holes (khanti). I give the Uriyá names; in Bengali, dá means a hatchet. The cost of the whole is about £4, including £3 as the cost of the oxen.

WEIGHTS AND MEASURES.—Rice is sold in the country villages and on the fields to grain merchants, according to the following measure:—4 chhaták = 1 páo; 4 páo = 1 ser; 12 ser = 1 gauni; 8 gauni = 1 bharan. The gauni is simply a basket, which differs in size in different parts of the District. The measure used by shopkeepers in towns and merchants in selling rice is the following:—4 paysá = 1 chhaták; 4 chhaták = 1 páo; 4 páo = 1 ser; 5 ser = 1 pasuri; 8 pasuri = 1 maund. The Cattack ser weighs 105 rupees, or over two and a half pounds avoirdupois, and is used for all articles except grain on the field or in the country villages, and for salt, which is sold according to the Calcutta ser, equal to 80 rupees weight, or two pounds avoirdupois. Gold and precious stones are weighed according to the following standard:—4 dhán = 1 rati; 8 rati = 1 másá; 10 másá = 1 bhari or tolá, equal to 180 grains Troy weight. Land measure is as follows:—4 káni = 1 biswá; 16 biswá = 1 gunt; 25 gunt = 1 mán, equal to an English acre; 20 mán = 1 bátí. Distance is measured as follows:—4 anguli = 1 mushti; 3 mushti = 1 chákhand (span); 2 chákhand = 1 hát (cubit); 4 hát = 1 dhanu; 2000 dhanu = 1 kos; 4 kos = 1 yojan, or nine miles. During the Musalmán and Marhattá Rule, the current coin of the Province was the kauri (cowrie). Not only were private transactions carried on, but Government salaries were paid in this measure. It has now nearly disappeared from the towns and bázárs, but still continues current in the villages. The standard is as follows:—4 kranti = 1 kauri (cowrie); 4 kauri = 1 gandá; 20 gandá (80 cowries) = 1 pan; 16 pan (1280 cowries) = 1 káhan. The number of cowries to the rupee varies; the present rate is reported at 3584; in 1804 it was as high as 7680. It may be estimated, generally speaking, that 3 káhans or 3840 cowries = two shillings.

LANDLESS LABOURING CLASSES.—A distinct class of day-labourers, neither possessing nor renting any lands, has always existed in Cattack District. It is composed chiefly of Páns, Báuris, Kandrás, and other very low castes, with some families of Chásás. The number of these landless day-labourers is said to have diminished of late years, while the demand has increased in consequence of the large public works now in progress. In short, the enhanced prices of agricultural produce have given an impetus to tillage, and made it pay better to settle on inferior and formerly

uncultivated land than to go out for hire. The price of labour has risen accordingly, and the condition of the labouring class has so much improved as to attract the poorer sort of husbandmen to Cattack City when field work is suspended. Agricultural labourers are of two sorts—permanent and occasional. The former generally receive in advance a small amount of money, about ten or twelve shillings without interest, which they must make good before quitting the service. They are paid daily wages in paddy at a slightly lower rate than that which the occasional labourers receive, but they get a piece of cloth once a year from their employer, and half an acre of land, rent free, which they cultivate on their own account with their master's plough and bullocks. The occasional labourers are merely extra hands for weeding and reaping. When employed on the former, they receive at the rate of fifteen pounds of paddy (equal to six and a half pounds of husked rice) per diem. At harvest they are paid by bundles, at the rate of one for every twelve or fifteen bundles of the crop cut. Women and children are also largely employed at these seasons, but at lower rates.

SPARE CULTIVABLE LAND can only be found in the low-lying ground along the sea-coast. A large number of cultivators perished in these tracts during the famine of 1866, and they have not yet been wholly replaced. Previous to the famine, the amount of such spare land was almost *nil.*

MANURES are hardly used at all in the inundated parts of the delta, and in the other tracts for a few crops only. Rice-fields get but a thin top-dressing of cow-dung and decomposed rubbish; but for sugar-cane, one and a half hundredweight of oil-cake per acre, valued at five shillings, is considered indispensable.

IRRIGATION is conducted almost wholly by means of natural watercourses. Tank water is very seldom used, nor are wells sunk for this purpose. The people scarcely ever cultivate crops requiring irrigation, except in localities where natural facilities exist for it. Cotton, Dálua rice, But, Pán, and Sugar-cane must have a sure supply of water, but a very little suffices for Tobacco, Wheat, or Barley. The Collector estimates the cost per acre of labour in irrigating the different varieties of crop as follows:—Sugar-cane, £3; Cotton, £1, 4s.; Dálua rice, 4s.; Pán, £10; Tobacco, 8s.; Barley, 6s.; But, 6s.; and Wheat, 6s.

ROTATION OF CROPS.—Turmeric, Cotton, and Sugar-cane are not cultivated on the same land for successive years, Biáli rice being grown instead, every alternate year. Although the utility of allowing land to lie fallow is fully understood by the cultivators, the constant demand for land makes it very seldom practised.

BLIGHTS are of rare occurrence; and hitherto, when they do make

their appearance, they have only affected particular localities. No case is recorded of a whole crop being destroyed by blight.

FLOODS and droughts are the real calamities of Cattack, as of all the other Districts of Orissa. The former arise from sudden freshets of the rivers before they enter the District, and not from excessive rainfall within it. Since 1830 the floods have been of so serious a character as to cause a general destruction of the crop, in 1831–32, 1834–35, 1848–49, 1851–52, 1856–57, 1857–58, 1862–63, and 1866–67, or eight years in forty. The Collector states that the existing embankments can protect the District from ordinary floods, but not when the rivers rise unusually high, or when the embankments are breached. He adds that further protection is much needed by means of new embankments, and the strengthening of the present ones, although this want has been partially met by the canal embankments following the routes of the rivers.

DROUGHTS in Cattack are occasioned by the absence of local rainfall, and not from the failure of the rivers. On five different occasions within the last forty years, viz. in 1833–34, 1836–37, 1839–40, 1840–41, and 1865–66, drought has occurred on a sufficiently large scale to endanger the safety of the people. In seasons of drought the husbandmen dam up the rivers, and avail themselves of the water thus secured, as well as of the water of tanks, marshes, etc., wherever these exist. In 1865–66, the country was drained in this manner to such an extent as to affect the supply of bathing and drinking water. A system of irrigation-canals, like that in course of construction, will go far to mitigate the effects of these calamities; and the usefulness of such works was put to a practical test in 1870. See a previous page of this Statistical Account.

It sometimes happens that the District is visited with the double calamity of flood and drought in the same year, the former occurring in the early part, and the latter towards the close of the season. Drought, however, is more ruinous than flood. Great distress is caused in years of inundation, but long protracted drought has always been followed by famine.

COMPENSATING INFLUENCES.—As the District is throughout of a deltaic character, and of a very equable level, no compensating influence exists by which in years of flood the crops of the higher lands might make up for the loss of those in the low-lying tracts. Nor, conversely, does the crop of the low lands in years of drought compensate for the loss of that in the higher levels. Both tracts suffer in either case, although in different degrees.

FAMINES.—The Collector considers that prices reach famine rates

when only twenty-one pounds of common husked rice can be got for a rupee, and that relief operations should then commence. In average seasons such rice, the universal food of the people, seldom rises above fifty-two pounds for the rupee. If the price of rice in January should reach forty pounds for the rupee, a very severe scarcity or actual famine is to be feared, as the ordinary rate at that time is seldom less than sixty-eight or sixty-six pounds for the rupee. He would accept such a rise of price as a distinct warning of famine, unless it were susceptible of explanation from local or temporary causes. The District depends almost entirely on the Sárad rice, the acreage under the Biáli rice being only one-fourth of that under Sárad. In the event, therefore, of a general failure of the December harvest, the following one in August and September will not make up for the deficiency. In 1866, the common rice rose to between seven and eight pounds for the rupee.

Preventive Works.—Since the famine of 1866, much has been done to prevent a recurrence of a similar calamity. Harbours, canals, and regular steam communication with Calcutta have broken in upon the isolation of Orissa. These and the irrigation works have been described in a foregoing page. The Collector reports, that even what has been already effected would avert the extremity of famine throughout most of the District, by importations *via* False Point and the Dhámrá River. He believes that, upon the completion of the measures now in progress, the recurrence of a famine such as that of 1866 will be impossible. The most inaccessible portion of the District at present is the Jájpur Subdivision, and it would be very difficult in the dry season to throw large supplies of grain into it from the sea-coast. In the absence of a canal, the Collector considers it most important that the northern part of this Subdivision should be connected with tidal waters by a road.

Administrative History.—An account of the occupation of Cattack will be found in my volume on Orissa. In 1829–30, the first year of which regular records survive, the total revenue of the District amounted to £139,642, and the expenditure on Civil Administration to £114,438. In 1860–61, the revenue, after deducting inefficient balances and transfer accounts, had increased to £202,867, and the disbursements to £193,882. In 1868–69, after the same deductions, the revenue amounted to £272,688, and the expenditure to £268,791. During the last forty years, therefore, the revenue of the District has almost doubled, and the civil expenditure has multiplied itself nearly two and a half times.

The Land Tax from all sources amounted to £84,937 in 1829–30,

to £78,893 in 1850–51, and to £80,937 in 1868–69. The District, however, included a larger area in 1829 than in the two last-mentioned years. As in every part of Orissa, the subdivision of estates has gone on rapidly under British rule, the number of estates having more than doubled within the last forty years, while the number of proprietors or coparceners has more than quadrupled. In 1829, Cattack District contained 1509 estates, paying net £81,896, held by 2118 registered proprietors or coparceners; the average land revenue paid annually by each estate amounting to £54, 5s. 6d., and by each separate proprietor to £38, 13s. In 1850 the number of estates had increased to 2351, paying net £78,893, with 5110 proprietors and coparceners, whilst the average annual revenue paid by each estate fell to £33, 11s., and by each proprietor or coparcener to £15, 8s. 9d. In 1869 there were 3223 estates, paying net £78,421, with 8511 proprietors; the average revenue paid by each estate being only £24, 6s. 8d., and by each proprietor or coparcener, £9, 4s. If we go into details, this result is exhibited in a still more striking manner. In 1829 the average payment of each separate proprietor of a small estate paying under £10 a year of Government revenue was £2, 5s. 9d; in 1850 it had fallen to £1, 8s., and in 1869 to £1, 2s. In the second class of estates, paying between £10 and £100 a year of Government rental, each coparcener paid on an average £22, 9s. 6d. in 1829, £12, 11s. in 1850, and £9, 12s. in 1869. In the large estates, or those paying a land revenue of upwards of £100 a year, the average payment of each individual coparcener was £222, 14s. in 1829, £122, 1s. in 1850, and £60, 4s. in 1869. In 1805, when the Jurisdiction of Cattack included also the greater part of Balasor and Purí, the land revenue of the Province amounted to £121,904, or only one-third more than that of the single District of Cattack in 1869. This land revenue was paid by 2275 estates, held by 2517 proprietors or coparceners. At the present day, Cattack District alone contains nearly double this number of estates, and more than treble the number of proprietors.

PROTECTION TO PERSON AND PROPERTY has increased in a still more rapid rate under British rule. In 1816 there were only four courts, revenue and judicial, in the whole District. In 1850 the number had increased to eleven, in 1862 to sixteen, and in 1869 to twenty-one. These Courts are distributed over the District as follows:—Cattack Station, 12; Jájpur Subdivision, 3; Kendrápárá Subdivision, 4; and Jagatsinhpur Subdivision, 2. The number of Covenanted Officers in the District amounted to three in 1816, five in 1850, four in 1862, and six in 1869.

Subdivisional System.—The three Subdivisions of Cattack, and the distribution of Courts among them, have been indicated in the last paragraph,—viz. Jájpur, Kendrápárá, and Jagatsinhpur. They do not admit of separate treatment, as Cattack District forms a well-marked geographical entity, of which they are strictly integral parts. Several references to them will be found in previous parts of this Account, and in my general work on Orissa; but it would serve no purpose to describe them individually.

The Police.—The cost of officering the District Police from the rank of Head Constable (Jamádár) upwards, has increased from £540 in 1833, to £538 in 1840, and £1286 in 1860. At the end of the year 1868, the regular police force of the District stood thus:—5 European Officers, on an average salary of £456 a year; 24 Native Officers, on an average pay of £86, 8s.; and 756 foot constables, on an average pay of £8, 14s. a year,—total strength of force, of all ranks, 785, maintained at a total cost of £13,270. The Police Department estimates the area of the District at 3370 square miles, and the population at 1,072,463. According to these figures, the strength of the regular police, as compared with the area of the District, is one man to every 4·3 square miles, or one to every 1366 of the population,—maintained at a cost of £3, 18s. 9d. per square mile of area, or a fraction less than threepence per head of the population, per annum. The Subordinate Officers and men consist of the following races:—590 Uriyás, 61 Hindustánís, 40 Bengalis, 7 Panjábís, 71 Telingás, 8 Támuls, and 2 Europeans (Sub-Inspectors). During the year 1868 they conducted 1694 cognisable cases, made 1952 arrests, and obtained 1194 convictions.

Village Watch.—Besides the regular District Police, there is a Village Watch and a Municipal Police. The former amounted in 1868 to 5363 men, receiving an estimated pay in money and lands of £10,252, equal, according to the police calculations of the area and population of the District, to a charge of £3, 0s. 10d. per square mile of the area, or twopence farthing per head of the population. The proportion to the area is one man to every 0·63 square miles, or one man to every 199 of the population. Each rural watchman has, on the average, 38 houses under his charge. The Municipal Police is a small force maintained at an average cost of £480 a year, and consists of three native officers drawing an average pay of £12, and 68 footmen on an average pay of £6, 8s. 6d. Including the Regular Force, the Municipal Police, and the Village Watch, the police of all ranks amounts to 6219, maintained at a total cost of £24,002, being one man to every 172 of the population. The annual cost of protecting person and property, therefore, in Cattack District, is £7, 2s. 5d. per

mile, or upwards of 5⅓d. per head of the population according to the police basis of calculation. For police purposes, the District is divided into nine Subdivisions (Thánás).

CRIME is more prevalent in Cattack than in either Purí or Balasor. The average daily number in Jail in 1868 in Cattack District, including the Subdivisions of Jájpur, Kendrápárá, and Jagatsinhpur, was 415, of whom only 16 were women, or about one person always in Jail to every 3116 of the population aggregating 1,293,048 souls. The entire number admitted in 1868 amounted to 1469 males and 75 females. The cost of rations per prisoner amounted to £3, 14s. 9d. in 1867, and £2, 9s. 7d. in 1868. The great difference is owing to the famine of 1866, the effects of which in 1867 still made themselves severely felt on the price of food. The total cost of Jail Establishment in 1868 was 9s. 9d. per prisoner; and the gross cost of maintenance, including diet, clothing, hospital charges, and all other items, amounted to £4, 3s. 9d. per head.

FISCAL DIVISIONS.—Cattack District was divided into 86 Fiscal Divisions (Parganás) in 1837, which, with three transferred from the District of Balasor in 1869, make a total of 89; including four Hereditary Forts (Kilas), regularly settled and surveyed; and 8 which have neither been measured nor settled. With the exception of Sukindá, however, an estimate of their area and proportion of cultivated to uncultivated lands is shown in the subjoined list. The Fiscal Divisions are, generally speaking, larger than those of Balasor District, but a few of them are even smaller; 4 being less than one square mile, 8 under three square miles, and 14 under five square miles in extent. The number of villages or rural communes was returned at 6731 in 1839, and 6941 in 1870, containing on an average 150 inhabitants each, taking the total population of the District to be 1,293,084, as estimated by the Surveyor-General. The following list exhibits the Fiscal Divisions of the District, as they were arranged for Settlement purposes in 1837, showing the total area, with the proportion of land under cultivation, capable of cultivation, and uncultivable; the land revenue paid; the estimated population, and the names of the chief villages in each. Fractions of acres are not given.

(1.) ABARTAK—Area, 8·46 square miles, or 5419 acres; 3196 acres cultivated; 69 cultivable; 2153 uncultivable; land revenue, £512; population, 3261; chief villages, Sáatrápur and Jayapur.

(2.) AL KILA (unmeasured and settled portion of)—Area, 131·10 square miles, or 84,129 acres; 54,000 acres cultivated; none cultivable; 30,129 uncultivable; land revenue, £2814; population, 52,594; chief villages, Garh Al and Derábisi.

(2½.) AL KILA (measured and settled portion of)—Area, 1·8

square miles, or 690 acres; 571 acres cultivated; 15 cultivable; 103 uncultivable; land revenue, £55; population and names of chief villages given above.

(3.) ALTI—Area, 76·97 square miles, or 49,298 acres; 24,163 acres cultivated; 2071 cultivable; 23,023 uncultivable; land revenue, £2674; population, 43,592; chief villages, Káyamá and Barambardá.

(4.) ANABARTAK—Area, 3·86 square miles, or 2471 acres; 1147 acres cultivated; 133 cultivable; 1190 uncultivable; land revenue, £87; population, 1260; chief village, Pathuriyá.

(5.) APILA—Area, 4·98 square miles, or 3188 acres; 2134 acres cultivated; 79 cultivable; 974 uncultivable; land revenue, £195; population, 1535; chief village, Singársáhí.

(6.) ASURESWAR—Area, 65·17 square miles, or 41,712 acres; 30,806 cultivated; 1721 cultivable; 9185 uncultivable; land revenue, £3061; population, 44,183; chief villages, Malipur and Barkhír.

(7.) ATKHANTA—Area, 5·60 square miles, or 3589 acres; 2323 acres cultivated; 405 cultivable; 861 uncultivable; land revenue, £146; population, 1694; chief villages, Orto and Aetpur.

(8.) AHIYAS—Lately transferred from Balasor; details wanting.

(9.) BAHURUPA—Area, 170 square miles, or 1086 acres; 469 acres cultivated; 56 cultivable; 561 uncultivable; land revenue, £53; population, 609; chief villages, Bidhárpur and Atgarh.

(10.) BAKRABAD—Area, 52·86 square miles, or 33,830 acres; 13,223 acres cultivated; 1515 cultivable; 19,092 uncultivable; land revenue, £1609; population, 65,064; chief villages, Bisnábar and Barhampur.

(11.) BALUBISI—Area, 58·30 square miles, or 37,311 acres; 22,113 acres cultivated; 1198 cultivable; 13,999 uncultivable; land revenue, £2926; population, 28,788; chief villages, Muhammadpur and Raghunáthpur.

(12.) BARAN—Area, 26·95 square miles, or 17,251 acres; 8223 acres cultivated; 1683 cultivable; 7344 uncultivable; land revenue, £485; population, 3289; chief villages, Hátsáhí and Deultárá.

(13.) BARDIYALA—Area, 6·71 square miles, or 4297 acres; 1498 acres cultivated; 89 cultivable; 2709 uncultivable; land revenue, £128; population, 1714; chief villages, Syámprasád and Tárásáhí.

(14.) BARGAON—Area, 15·97 square miles, or 10,219 acres; 4751 acres cultivated; 625 cultivable; 4842 uncultivable; land revenue, £517; population, 4136; chief village, Ratnagir.

(15.) BARPALLA—Area, 9·74 square miles, or 6231 acres; 4206 acres cultivated; 334 cultivable; 1691 uncultivable; land revenue, £303; population, 4754; chief villages, Pangpál and Janpál.

(16.) BARUYA—Area, 46·89 square miles, or 30,007 acres; 18,388 acres cultivated; 2892 cultivable; 8727 uncultivable; land revenue, £2235; population, 30,433; chief villages, Haripur and Báliyápál.

(17.) BAUTARA—Area, 5·60 square miles, or 3586 acres; 2716 acres cultivated; 63 cultivable; 806 uncultivable; land revenue, £185; population, 1524; chief villages, Kasbá and Gobindpur.

(18.) Benáhár—Area, 46·43 square miles, or 29,717 acres; 19,288 acres cultivated; 673 cultivable; 9756 uncultivable; land revenue, £1538; population, 16,663; chief villages, Bálikudá and Khámbákul.

(19.) BISHANPUR KILA—Area, 17·51 square miles, or 11,208 acres; 5000 acres cultivated; 6208 uncultivable; land revenue, £186; population, 2367; chief villages, Panchpallí and Gaursáhí.

(20.) CATTACK HAVILI—Area, 11·97 square miles, or 7666 acres; 1422 acres cultivated; 178 cultivable; 6066 uncultivable; land revenue, £170; population, 12,050, exclusive of 46,436 population of Cattack Town and Suburbs; chief town, Cattack.

(21.) CHAURDA KOLAT—Area, 12·98 square miles, or 8310 acres; 4977 acres cultivated; 749 cultivable; 2583 uncultivable; land revenue, £624; population, 7207; chief villages, Kespur and Gobind-prasád.

(22.) CHHEDRA KILA—Total area, 8·37 square miles, or 5356 acres; 3300 acres cultivated; 2056 uncultivable; land revenue, £228; population, 1952; chief villages, Barang and Gunpur.

(23.) CHHEDRA KADALIBARI—Area, ·4 square miles, or 25 acres; 7 acres cultivated; 17 cultivable; 1 uncultivable; land revenue, £3; population included with that of Chhedrá Kila.

(24.) DALIJORA—Area, 97·22 square miles, or 62,220 acres; 7863 acres cultivated; 648 cultivable; 53,709 uncultivable; land revenue, £887; population, 10,867; chief villages, Agráhát and Bhagatpur.

(25.) DAMARPUR—Area, 17·30 square miles, or 11,077 acres; 7078 acres cultivated; 114 cultivable; 3885 uncultivable; land revenue, £761; population, 9853; chief villages, Dámarpur and Dhumát.

(26.) DARPAN KILA—Area, 97·27 square miles, or 62,257 acres; 25,983 acres cultivated; 1039 cultivable; 35,234 uncultivable; land revenue, £731; population, 22,013; chief villages, Dharmasálá and Chhatiyá.

(27.) DEOGAON — Area, 49·73 square miles, or 31,830 acres; 17,026 acres cultivated; 2107 cultivable; 12,697 uncultivable; land revenue, £1722; population, 17,359; chief villages, Neyáli and Kasardá.

(28.) DERABISI—Area, 0·7 square miles, or 46 acres; 37 acres

cultivated; 9 cultivable; none uncultivable; land revenue, £4; population included with that of No. 3 parganá Alti.

(29.) DIHI ARAKPUR—Area, 6·2 square miles, or 3852 acres; 2269 acres cultivated; 212 cultivable; 1371 uncultivable; land revenue, £362; population, 4702; chief villages, Arakpur and Padmalábhpur.

(30.) DOLGRAM—Recently transferred from Balasor District; details wanting.

(31.) DOMPARA KILA—Area, 88·37 square miles, or 56,557 acres; 6670 acres cultivated; 574 cultivable; 49,313 uncultivable; land revenue, £133; population, 8520; chief villages, Tálbast and Pátpur.

(32.) GANDITO—Area, 13·90 square miles, or 8892 acres; 6404 acres cultivated; 337 cultivable; 2150 uncultivable; land revenue, £556; population, 8978; chief villages, Kantáballabhpur and Pákanpur.

(33.) HARIHARPUR—Area, 61·59 square miles, or 39,418 acres; 28,104 acres cultivated; 893 cultivable; 10,421 uncultivable; land revenue, £2491; population, 39,370; chief villages, Jagatsinhpur and Nabapatná.

(34.) HARISHPUR KILA—Area, 59·96 square miles, or 38,376 acres; 6477 acres cultivated; 1995 cultivable; 29,904 uncultivable; land revenue, £364; population, 6437; chief villages, Gorá and Borkiná.

(35.) HATIMUNDA—Area, 16·28 square miles, or 10,417 acres; 5693 acres cultivated; 769 cultivable; 3954 uncultivable; land revenue, £546; population, 5727; chief villages, Gobindpur and Dadhibámanpur.

(36.) JAJPUR—Area, 86·63 square miles, or 55,446 acres; 38,201 acres cultivated; 1376 cultivable; 15,868 uncultivable; land revenue, £3219; population, 61,993; chief villages, Jájpur and Siddheswar.

(37.) JAYANABAD—Area, 8·14 square miles, or 5208 acres; 4577 acres cultivated; 39 cultivable; 591 uncultivable; land revenue, £271; population included with that of Hariharpur.

(38.) JAYIPUR—Area, 20·11 square miles, or 12,870 acres; 8742 acres cultivated; 967 cultivable; 3161 uncultivable; land revenue, £965; population, 16,508; chief villages, Khandihát and Koliatá.

(39.) JHANKAR—Area, 54·83 square miles, or 35,092 acres; 21,483 acres cultivated; 751 cultivable; 12,858 uncultivable; land revenue, £2757; population, 30,771; chief villages, Kanpur and Birtol.

(40.) JODH—Area, 15·55 square miles, or 9952 acres; 6148 acres cultivated; 931 cultivable; 2872 uncultivable; land revenue, £615; population, 6667; chief villages, Bánsáhí and Katrápur.

(41.) KALAMATIYA—Area, 43·80 square miles, or 28,029 acres; 15,572 acres cultivated; 151 cultivable; 12,305 uncultivable; land revenue, £1315; population, 17,745; chief villages, Bari and Náráyanpur.

(42.) KALKALA KILA—Area, 17·56 square miles, or 11,238 acres; 6000 acres cultivated; 5238 uncultivable; land revenue, £13; population, 1351; chief village, Kalkalá.

(43.) KANCHIKHAND—Area, 4·73 square miles, or 3026 acres; 1565 acres cultivated; 83 cultivable; 1377 uncultivable; land revenue, £166; population, 1955; chief villages, Rájkaná and Barcháncho.

(44.) KANIKA KILA—Area, 577·60 square miles, or 369,661 acres; 91,645 acres cultivated; 35,917 cultivable; 242,098 uncultivable; land revenue, £2041; population, 39,186; chief villages, Ganjá and Mato.

(45.) KARIMUL—Area, 28·9 square miles, or 17,979 acres; 7415 acres cultivated; 878 cultivable; 9686 uncultivable; land revenue, £850; population, 11,971; chief villages, Púbkachh and Bhátpárá.

(46.) KATE—Area, 66·88 square miles, or 42,803 acres; 22,394 acres cultivated; 1195 cultivable; 19,214 uncultivable; land revenue, £1741; population, 19,539; chief villages, Mádhab and Gajrájpur.

(47.) KATIYA—Lately transferred from Balasor; details wanting.

(48.) KAYAMA—Area, 54·38 square miles, or 34,799 acres; 22,789 acres cultivated; 952 cultivable; 11,058 uncultivable; land revenue, 1498; population, 10,670; chief villages, Ustíyá and Báligán-nágpur.

(49.) KERUYALKHAND—Area, 9·83 square miles, or 6289 acres; 3148 acres cultivated; 184 cultivable; 2957 uncultivable; land revenue, £535; population, 7689; chief villages, Kukudáng and Jasrájpur.

(50.) KHANDI—Area, 29·55 square miles, or 18,909 acres; 14,432 acres cultivated; 75 cultivable; 4401 uncultivable; land revenue, £1710; population, 24,238; chief villages, Tulang and Dengá.

(51.) KODINDA—Area, 36·84 square miles, or 23,580 acres; 13,272 acres cultivated; 674 cultivable; 9634 uncultivable; land revenue, £1367; population, 17,461; chief villages, Rájhansa and Mahurá.

(52.) KOKUYAKHAND—Area, 29·28 square miles, or 18,739 acres; 12,195 acres cultivated; 526 cultivable; 6017 uncultivable; land revenue, £1273; population, 15,834; chief villages, Tángí and Hariantá.

(53.) KUHUNDA—Area, 1·18 square miles, or 754 acres; 524 acres cultivated; 67 cultivable; 162 uncultivable; land revenue, £49; population included in that of parganá Jayípur; chief villages, Kuhundágrám and Sípurá.

(54.) KUJANG KILA—Area, 358·74 square miles, or 229,366 acres; 100,000 acres cultivated; 129,366 uncultivated; land revenue, £750; population, 18,059; chief villages, Tikhirí and Páráldwíp.

(55.) KURNIYA—Area, 7·25 square miles, or 4642 acres; 3343 acres cultivated; 51 acres cultivable; 1247 uncultivable; land revenue, £267; population, 3598; chief villages, Chanyarpur and Ichhápur.

(56.) KUSMANDAL—Area, 8·11 square miles, or 5189 acres; 3548 acres cultivated; 252 cultivable; 1389 uncultivable; land revenue, £550; population, 4338; chief villages, Barhampur and Jháreswar.

(57.) KUTABSHAHI—Area, 0·42 square miles, or 266 acres; 212 acres cultivated; 6 cultivable; 47 uncultivable; land revenue, £13; population, 110.

(58.) MADHUPUR KILA—Area, 60·58 square miles, or 38,773 acres; 15,000 acres cultivated; 23,773 uncultivable; land revenue, £617; population, 22,421; chief villages, Madhupur and Singápur.

(59.) MANJURI—Area, 11·15 square miles, or 7140 acres; 4767 acres cultivated; 183 cultivable; 2189 uncultivable; land revenue, £338; population, 3188; chief village, Mahámániyá.

(60.) MATKADABAD—Area, 16·42 square miles, or 10,494 acres; 6004 acres cultivated; 14 cultivable; 4476 uncultivable; land revenue, £442; population, 4106; chief villages, Masudpur and Mugdihi.

(61.) MATKADNAGAR—Area, 31·17 square miles, or 19,950 acres; 13,852 acres cultivated; 1038 cultivable; 5060 uncultivable; land revenue, £1602; population, 24,945; chief villages, Máhángá and Kálianti.

(62.) MUTRI—Area, 14·32 square miles, or 9165 acres; 836 acres cultivated; 65 cultivable; 8263 uncultivable; land revenue, £108; population included with that of Bakrábád; chief village, Naráj.

(63.) NEULBISI—Area, 3·94 square miles, or 2510 acres; 1602 acres cultivated; 365 cultivable; 551 uncultivable; land revenue, £119; population, 1905; chief villages, Bodhang and Nayápárá.

(64.) NAHAKHAND—Area, 16·49 square miles, or 10,555 acres; 7436 acres cultivated; 582 cultivable; 2536 uncultivable; land revenue, £871; population, 9611; chief villages, Bharatpur and Bágurá.

(65.) OLASH—Area, 39·8 square miles, or 25,011 acres; 14,815 acres cultivated; 1476 cultivable; 8720 uncultivable; land revenue, £1464; population, 27,686; chief villages, Rasulpore and Rájendrapur.

(66.) PADAMPUR—Area, 25·94 square miles, or 16,600 acres; 9593 acres cultivated; 355 cultivable; 6652 uncultivable; land revenue, £1247; population, 18,954; chief villages, Págáhát and Mahásinhpur.

(67.) PAENA—Area, 9·39 square miles, or 6009 acres; 3307 acres cultivated; 255 cultivable; 2447 uncultivable; land revenue, £420; population, 4553; chief villages, Páilo and Rágpur.

(68.) PAENDA—Area, 40·72 square miles, or 26,062 acres; 13,368 acres cultivated; 1393 cultivable; 11,301 uncultivable; land revenue,

£1313; population, 21,793; chief villages, Paharájpur and Kishannagar.

(69.) PANIKHAND—Area, 1·82 square miles, or 1162 acres; 514 acres cultivated; 263 cultivable; 384 uncultivable; land revenue, £64; population, 2407; chief village, Kakhar.

(70.) PATIYA KILA—Area, 42·21 square miles, or 27,013 acres; 10,000 acres cultivated; 17,013 uncultivable; land revenue, *nil;* population, 8794; chief villages, Raghunáthpur and Garh Patiyá.

(71.) PATU MAHANADI—Area, 0·1 square mile, or 8 acres; all cultivated; land revenue, 5s.; population included with that of Kila Dompárá.

(72.) SAHIBNAGAR—Area, 8·40 square miles, or 5372 acres; 4225 acres cultivated; 229 cultivable; 918 uncultivable; land revenue, £328; population included with that of Jájpur; chief villages, Hargobindpur and Champábandh.

(73.) SAIBIR—Area, 31·82 square miles, or 20,362 acres; 11,468 acres cultivated; 1864 cultivable; 7030 uncultivable; land revenue, £1713; population, 13,107; chief villages, Puran and Madhusudanpur.

(74.) SAILO—Area, 39·16 square miles, or 25,064 acres; 13,771 acres cultivated; 686 cultivable; 10,605 uncultivable; land revenue, £1233; population, 21,677; chief villages, Gobindpur and Kurang.

(75.) SWARASWATI—Area, 9·49 square miles, or 6070 acres; 3380 acres cultivated; 442 cultivable; 2247 uncultivable; land revenue, £460; population, 5555; chief village, Purúshottampur.

(76.) SHAHABAD—Area, 3·32 square miles, or 2124 acres; 1541 acres cultivated; 225 cultivable; 357 uncultivable; land revenue, £108; population included with Hariharpur.

(77.) SHERGARHA—Area, 137·70 square miles, or 88,127 acres; 33,527 acres cultivated; 2256 cultivable; 52,344 uncultivable; land revenue, £1918; population, 29,152; chief villages, Korái and Pánikauli.

(78.) SHUJABAD—Area, 4·6 square miles, or 2596 acres; 1714 acres cultivated; 176 cultivable; 706 uncultivable; land revenue, £122; population included with that of Tiran; chief villages, Gulnagar and Sayyidpur.

(79.) SHUJANAGAR—Area, 17·30 square miles, or 11,069 acres; 5759 acres cultivated; 836 cultivable; 4473 uncultivable; land revenue, £435; population included with that of Sáilo; chief villages, Chaupárá and Eranch.

(80.) SUHANG—Area, 17·66 square miles, or 11,304 acres; 6536 acres cultivated; 816 cultivable; 3951 uncultivable; land revenue, £705; population, 8719; chief villages, Nembálo and Nágarpur.

(81.) SUKINDA—Not measured; land revenue, £136; population, 15,627; chief villages, Banjá and Sukindá.

(82.) SUKNAI—Area, 28·77 square miles, or 18,409 acres; 11,673 acres cultivated; 1023 cultivable; 5712 uncultivable; land revenue, £1502; population, 13,107; chief villages, Narendrapur and Bángálpur.

(83.) SULTANABAD—Area, 5·25 square miles, or 3361 acres; 2151 acres cultivated; 404 cultivable; 805 uncultivable; land revenue, £125; population, etc., included in the statement of parganá Kalámátiyá.

(84.) SUNGRA—Area, 41·87 square miles, or 26,799 acres; 19,164 acres cultivated; 1175 cultivable; 6459 uncultivable; land revenue, £2413; population, 32,092; chief villages, Sálepur and Lachhmábar.

(85.) TAPANKHAND—Area, 14·64 square miles, or 9371 acres; 2074 acres cultivated; 250 cultivable; 7046 uncultivable; land revenue, £277; population, 3366; chief villages, Bánipadá and Guripatná.

(86.) TISANIYA—Area, 32·53 square miles, or 20,819 acres; 13,062 acres cultivated; 700 cultivable; 7056 uncultivable; land revenue, £1049; population, 20,982; chief villages, Binjhárpur and Márkandpur.

(87.) TIKAN—Area, 52·72 square miles, or 33,744 acres; 19,522 acres cultivated; 3069 cultivable; 11,153 uncultivable; land revenue, £1436; population, 16,467; chief villages, Kendrápárá and Thákurpatná.

(88.) TIRAN—Area, 42·8 square miles, or 26,932 acres; 17,296 acres cultivated; 781 cultivable; 8854 uncultivable; land revenue, £1887; population, 14,254; chief villages, Jagannáthpur and Pánduá.

(89.) UTIKAN—Area, 63·29 square miles, or 40,506 acres; 26,511 acres cultivated; 5072 cultivable; 8923 uncultivable; land revenue, £2712; population, 19,771; chief villages, Patámundí and Chandannagar.

CULTIVABLE LAND.—The above statement, principally compiled from the Settlement papers of 1837, must be received with caution. The population is derived from a separate return after the famine of 1866. The Settlement Records show a total area, excluding the large tract of Sukindá, and the three Fiscal Divisions recently transferred from Balasor, of 3477 square miles, or 2,225,412 acres. According to the Settlement Record of 1837, the area then under cultivation was 1,045,227 acres; the area cultivable, but not under tillage, 94,357 acres; and uncultivable, 1,085,827 acres. Roughly speaking, therefore, one-half of the whole area was under cultivation or cultivable, the other half being uncultivable and waste. In 1837, the area capable of tillage, but lying untilled, was 9·02 per cent. of the land actually cultivated, or 4·23 per cent. of the whole District. In most of the Fiscal Divisions, however, the actual proportion of arable land was much greater than the uncultivable. The two large seaboard tracts of Kaniká and Kujang were, from the nature of the country, in a very

backward state, and disturbed the general average. If they be omitted from the calculation, the result shows an area of 947,939 acres of cultivated or cultivable land, against 714,363 acres incapable of tillage. The Collector reports, that since the time to which the above figures refer, at least 7–8ths of the land set down as cultivable has been brought under the plough, and states that a large portion of that returned as uncultivable has also been reclaimed. The uncultivable land in the regularly settled part of the District was classified in 1837 as follows:—(1) Jungle lands, 131,852 acres; and (2) rivers, roads, waste lands, etc., 378,349 acres. A return drawn up in 1865 states that, of this area, 32,895 acres of jungle and 96,587 acres of waste land were then capable of being brought under cultivation. This has now to some extent been laid under crops, and the Collector estimates the total increase of rice cultivation at nearly one-fourth during the past twenty years.

SURVEY MEASUREMENTS.—The foregoing estimates were made for Settlement purposes, and I have deemed it necessary to give them, as the Settlement of 1837 was continued unchanged in 1867 for other thirty years, and is therefore still current. The Survey Officers divided the District into eighty Fiscal Divisions instead of eighty-nine; and owing to changes in the boundaries of such Divisions (parganás), and to a more correct system of measurement, obtained very different results. These results are now embodied in the Surveyor-General's Maps (scale, 1 mile to the inch), and represent the Fiscal Divisions and net total area of the District at the period of their last measurement. The differences are due, as already stated, not merely to a more accurate system of work, but to changes in the boundaries of the Fiscal Divisions, and of the District. The total area of the District is returned by the Surveyor-General at 3178·39 square miles, arranged in eighty Fiscal Divisions, as follow:—(1) Abartak, area 9·73 square miles, or 6225 acres. (2) Al Kila, 80·60 square miles, or 51,582 acres. (3) Alti, 79·19 square miles, or 50,682 acres. (4) Anábartak, 4·20 square miles, or 2686 acres. (5) Apilá, 5·24 square miles, or 3353 acres. (6) Asureswar, 68·89 square miles, or 44,091 acres. (7) Arakpur, 4·79 square miles, or 3064 acres. (8) Atkhanta, 6·02 square miles, or 3851 acres. (9) Ahiyás (portion of), 33·29 square miles, or 21,306 acres. (10) Bahurúpá, 1·66 square miles, or 1059 acres. (11) Bákrábád, 60·93 square miles, or 38,993 acres. (12) Bálubisi, 59·77 square miles, or 38,252 acres. (13) Bárán, 26·72 square miles, or 17,103 acres. (14) Bárdiyálá, 6·81 square miles, or 4357 acres. (15) Bárgáon, 16·10 square miles, or 10,303 acres. (16) Barpallá, 6·42 square miles, or 4109 acres. (17) Baruyá, 50·03 square miles, or 32,019 acres. (18) Báutará, 5·58 square

miles, or 3574 acres. (19) Benáhár, 47·16 square miles, or 30,182 acres. (20) Bishanpur Kila, 17·51 square miles, or 11,208 acres. (21) Cattack Hávilí, 14·84 square miles, or 9499 acres. (22) Chauda Kolát, 13·08 square miles, or 8374 acres. (23) Chhedrá Kila, 3·37 square miles, or 5356 acres. (24) Dálijorá, 79·64 square miles, or 50,971 acres. (25) Dámarpur, 17·09 square miles, or 10,935 acres. (26) Darpan Kila, 100·91 square miles, or 64,580 acres. (27) Deogáon, 50·93 square miles, or 32,595 acres. (28) Derábísi, 50·85 square miles, or 32,546 acres. (29) Dolgrám, transferred from Balasor District, 43·99 square miles, or 28,155 acres. (30) Dompárá Kila, transferred from the Tributary States, 84·83 square miles, or 54,293 acres. (31) Gandito, 14·91 square miles, or 9545 acres. (32) Hariharpur (Jagatsinhpur), 65·37 square miles, or 41,839 acres. (33) Harishpur Kila, 62·09 square miles, or 39,736 acres. (34) Hátimundá, 16·07 square miles, or 10,286 acres. (35) Jájpur, 70·20 square miles, or 44,924 acres. (36) Jhankar, 56·77 square miles, or 36,331 acres. (37) Jodh, 15·09 square miles, or 9659 acres. (38) Kalámátiyá, 44·10 square miles, or 28,221 acres. (39) Kalkalá Kila, 17·56 square miles, or 11,238 acres. (40) Kanchikhand, 4·65 square miles, or 2973 acres. (41) Kaniká, 280·84 square miles, or 179,737 acres. (42) Karimúl, 27·80 square miles, or 17,791 acres. (43) Káte, 68·35 square miles, or 43,745 acres. (44) Káyamá, 14·31 square miles, or 9157 acres. (45) Káyamá Kila, 6·47 square miles, or 4143 acres. (46) Keruyálkhand, 9·61 square miles, or 6150 acres. (47) Khandi, 30·29 square miles, or 19,385 acres. (48) Kodindá, 38·23 square miles, or 24,469 acres. (49) Kokuyákhand, 29·27 square miles, or 18,736 acres. (50) Kothdes (one village of, transferred from Purí), 0·34 square mile, or 219 acres. (51) Kuhundá Jayapur, 21·48 square miles, or 13,749 acres. (52) Kátiyá, 26·77 square miles, or 17,132 acres. (53) Kujang Kila, 358·38 square miles, or 229,366 acres. (54) Kurniyá, 7·57 square miles, or 4846 acres. (55) Kusmandal, 8·36 square miles, or 5353 acres. (56) Kutabsháhí, 0·42 square mile, or 269 acres. (57) Madhupur Kila, 60·58 square miles, or 38,773 acres. (58) Mátkadábád, 15·23 square miles, or 9743 acres. (59) Mátkadnagar, 34·05 square miles, or 21,794 acres. (60) Neulbísi, 4·12 square miles, or 2640 acres. (61) Náhákhand, 17·33 square miles, or 11,088 acres. (62) Olásh, 41·57 square miles, or 26,603 acres. (63) Padampur, 24·91 square miles, or 15,940 acres. (64) Páená, 10·42 square miles, or 6669 acres. (65) Páendá, 38·87 square miles, or 24,877 acres. (66) Pánikhand, 3·62 square miles, or 2316 acres. (67) Patiyá Kila, 42·21 square miles, or 27,013 acres. (68) Sáhibnagar, 6·44 square miles, or 4122 acres. (69) Sáibir, 33·56 square miles, or 21,477 acres. (70) Sáilo, 41·23 square miles, or

26,388 acres. (71) Swaraswatí, 11·10 square miles, or 7104 acres. (72) Shergarhá, 136·69 square miles, or 87,478 acres. (73) Suháng, 18·85 square miles, or 12,067 acres. (74) Suknai, 31·01 square miles, or 19,846 acres. (75) Sungrá, 46·99 square miles, or 30,073 acres. (76) Tisániyá, 32·79 square miles, or 20,983 acres. (77) Tapankhand, 13·29 square miles, or 8505 acres. (78) Tikan, 56·36 square miles, or 36,068 acres. (79) Tiran, 43·82 square miles, or 28,048 acres. (80) Utikan, 68·08 square miles, or 43,573 acres. Total area, 3178·39 square miles, or 2,034,476 acres.

MEDICAL HISTORY.—Average rainfall for five years previous to 1870, 63·18 inches; average temperature for ditto, 84°. The hot season commences in March, and lasts till about the middle of June; the rains from the middle of June till the end of October, when the cold weather sets in.

ENDEMICS.—Intermittent fever is common throughout the year, but reaches its greatest height from the close of the rainy season in October to the end of December. The houses throughout the District are built of mud dug up from the vicinity of the dwellings. The consequence is, that in the neighbourhood of almost every hut or house there is a dirty pit filled to overflowing with water in the rainy season, and the receptacle of every description of filth. After the rains, when the water dries up, these holes throw off a malarial stench, charged with fever-poison. Fevers of a very severe type prevail in the Hill tracts from October to the end of December. Elephantiasis is also common. The Civil Surgeon, after five years' residence in the District, reports that he has not observed any improvement in the health of the inhabitants during this period.

EPIDEMICS.—Cholera always breaks out in the months of June, July, and August, being brought by the pilgrims bound to or from the great festival of Jagannáth. Measles appear to be unusually prevalent in Cattack City and District. Small-pox generally makes its appearance about the beginning of the year, and as a rule ends before the middle of April. The Civil Surgeon states that its regular appearance during these months is owing to the practice of inoculating with small-pox matter. The inoculators preserve the virus in cotton, and commence operations about the end of December or beginning of January. Small-pox thus spreads to the unprotected, and becomes general throughout the District. The Uriyás are perfectly regardless of contagion; and it is no uncommon sight to see people in the streets, or walking about the crowded market-places, covered with the disease. Ancient prejudice stands in the way of vaccination, and even the more enlightened natives of Orissa will seldom allow their children to be

touched with vaccine matter. The Civil Surgeon reports favourably of the precautions which have been adopted to keep the pilgrims (the main cause of cholera epidemics) out of the Town of Cattack. The most prevalent form of cattle disease is Guti, or cattle small-pox, of which a full description is given in my Statistical Account of Balasor.

FAIRS.—The only large fair, or religious gathering, is the Báruní, which takes place in all the larger towns in the months of May or June, the most important being held on the sands of the Baitaraní at Jájpur, and continuing for two or three days. It is not attended by people from other Districts, but the peasants for miles around flock into the nearest town where it is held, sometimes to the number of 10,000 souls, laden with rural produce for barter or sale. The Civil Surgeon reports that no connection exists between these gatherings and the outbreak of epidemics. Cholera generally appears with the arrival of the Purí pilgrims, and does not cease till they have left the District.

THE INDIGENOUS DRUGS are as follow:—Ambulá (spondias mangifera); a bark used in dysentery. Ankránti (solanum jacquinii); an expectorant. Ansun (terminalia tomentosa); a stimulant. Arjun (terminalia arjuna); bark astringent and diuretic febrifuge. Arkhá (calotropis gigantea); a stimulant, the leaves used as an anodyne, and in elephantiasis, ringworm, lepra, and as a poultice in sprains and boils. Aguyábát (premna spinosa); a stimulant, febrifuge, and expectorant; also used in eruptive diseases, and in indigestion. Asuágandhá (physalis somnifera); the bark and root used as a tonic, anodyne, and diuretic; the leaves steeped in oil are used for boils and other inflammatory eruptions. Asok (Jonesia Asoka); bark used as an astringent in cases of internal hæmorrhoids, and also in menorrhagia. Amba (mangifera indica); a bark used as an astringent in diarrhœa. Bel (Ægle marmelos); a fruit used in dysentery and diarrhœa. Bhringaráj (verbesina scandens); used externally in headache and ophthalmia. Bámunhátá (clerodendrum syphonanthus); used in asthma and fevers. Baulo (mimusops elengi); a bark used as an astringent in sore throat. Bajra Múlá (penicillaria spicata); root used in gonorrhœa. Bháliyá (semecarpus anacardium); a tonic and counter-irritant; also used in lepra and indolent sores. Beguniyá; an expectorant and stimulant. Báhárá (terminalia belerica); an astringent used in diarrhœa and dysentery. Báygobá, two kinds (jatropa curcas and glandulosa); an anodyne; the oil from the nut used in rheumatism, etc. Bená (andropogon muricatum); a diaphoretic and febrifuge. Básang (bergera kœnigii); an expectorant and antispasmodic. Bhutairi; tonic and febrifuge. Bar Koli (zizyphus jujuba); bark of the root used as

an astringent in diarrhœa. Báibidanga (emblica ribes); a vermifuge. Baruná (cratæva Narvala); bark used as a tonic and febrifuge. Bhui Aolá (phyllanthus niruri); root used in jaundice, etc. Bákuchi (psoralia corylifolia); used in lepra and skin diseases. Chatauri (asparagus racemosus); tonic used in gonorrhœa and lepra. Chemudánimúl (hemidesmus Indica); alterative used in syphilis. Chiretá (agathotes cheyrata); not an indigenous drug; used as a febrifuge and tonic. Chitámúl-níl (plumbago Zeylanica); a vescicant. Chitámúl-lál (plumbago rosea); used in spleen, and for procuring abortion. Chákundá (cassia tora); leaves used as a purgative. Champá (michelia chumpaca); bark a stimulant, expectorant, and astringent; seeds and fruit used for healing cracks in the feet; root a purgative. Dálimba (punica granatum); root and bark astringent. Dhuturá, all kinds (Datura metel); narcotic, stimulant, antispasmodic, and anodyne, and smoked in asthma. Dáru Haldá; used in palpitation of the heart, and in ophthalmia and rheumatism. Donti (croton polyandrum); root and seeds used as a purgative. Dudhiá-latá (oxystelma esculentum); a decoction of the plant used in ulceration of the mouth; the fresh roots in jaundice. Ghi Kumári (Agave cantula); used in vertigo and tic as a refrigerant. Gila (guilandina bouducella); seeds used as a tonic and febrifuge; root in rheumatism. Gajá pipul (scindapsus officinalis); a febrifuge, tonic, and stimulant. Golancha (cocculus cordifolius); tonic, febrifuge, and antibilious. Gab (ricinus communis); oil purgative; old oil used in rheumatism. Gakhurá (tribulus terrestris); tonic, anodyne, and febrifuge. Hasti-karna (clerodendrum hastala); tonic, febrifuge, and purifier of the blood. Hárbhángá (cissus quadrangularis); used for dislocations and in joining fractures. Hijli-bádám (anacardium occidentale); oil used in rheumatism, etc. Haridrá (terminalia chebula); tonic in fever. Indrajab (Wrightea antidysenterica); bark, root, and seeds used in dysentery, diarrhœa, and fever, and as a vermifuge. Indra-báruní; a purgative. Isabgul (plantago ispaghula); diuretic and demulcent, used in urinary diseases. Jám (eugenia jambolana); root and bark used as an astringent in diarrhœa. Jaitimúl (Œschynomene sesban); root an antispasmodic; leaves used as a poultice in orchitis. Jádumári (cassia alata); leaves used in ringworm. Jayapál (croton tiglium); seeds used as a purgative; root in snake-bite. Kaukuá (alpinia); bark an astringent; root a vermifuge. Krishna Párni (Herpestis monnieria); febrifuge and antibilious. Kantákusum (argemone Mexicana); the yellow milk used in itch and ringworm, as well as the oil of the seeds. Kuchilá (Strychnos nux vomica); poison, used as a febrifuge, antirheumatic, and in lepra; also as an antisyphilitic. Káládáná (pharbitis nil); seeds and roots purgative. Karmangá

(averrhoa carambola); seeds used as a vermifuge. Kásondi (cassia sophora); seeds used as a vermifuge, and in scabies. Khetpáprá (oldenlandia biflora); an excellent febrifuge, tonic, and stimulant. Lanká siju (euphorbiaceæ); juice or milk used as a detergent healing, or in swellings; the bark and seeds as purgatives. The milk of some species used in cases of scabies, lepra, and ringworm. Ludhu (symplocos racemosa); astringent and antibilious, used in ophthalmia. Muthá (cyperus longus); febrifuge and tonic. Matmatiá; tonic, febrifuge, and vermifuge. Mán Sáru (arum Indicum); used in piles. Murgábi (sanseviera Zeylanica); a febrifuge, also used in consumption. Mahánim (melia sempervirens); astringent refrigerant, and used in lepra. Manjishthá (rubia manjista); tonic, and used in hysteria. Nágeswar (mesua ferrea); oil used in chronic rheumatism, the flowers as a refrigerant and tonic. Nim (melia azedarachta); tonic and febrifuge; leaves used as poultices in bad ulcers, lepra, and other skin diseases. Ol (arum campanulatum); used in indigestion, colic, piles, and enlargement of the spleen. Pán (piper betle); stimulant and expectorant. The root is used to prevent child-bearing. Phutphutiká, used in scabies, and as a poultice in sprains. Pitá-nalitá (corchorus olitorius); bitter tonic. Patal (tricosanthes dioica); cathartic. Palás (butea frondosa); gum or resin astringent, the seeds used as a vermifuge. Raktachandam (pterocarpus santalinus); astringent and febrifuge. Suánoi; tonic, febrifuge, vermifuge, and purifier of the blood. Sunári (cathartocarpus fistula); a purgative. Somráj (serratula anthelmintica); vermifuge. Sajiná (moringa pterygosperma); stimulant, diuretic, used in colic. Sálpárni, febrifuge and tonic, allays thirst in fever. Sál (shorea robusta); seeds astringent; the young shoots are used in cases of inflammation. Simul (Bombax heptaphyllum); seeds used to prevent small-pox from spreading over the body. Sonámukhi (cassia obovata); purgative. Tentuli (Tamarindus Indica); seeds astringent, used in diarrhœa. Tchori (Ipomœa turpethum); purgative and cathartic. Tálmúli (curculigo orcihoides); tonic, and purifier of the blood. Tundporá; stimulant, expectorant, antisyphilitic, and antiseptic.

APPENDIX V.

GEOLOGICAL ACCOUNT OF ORISSA.

THE following account has been kindly drawn up for me by the Geological Survey of India; and I take this opportunity of acknowledging the generous assistance of Dr. Oldham, the head of the Survey, in many matters connected with the Gazetteer of Bengal.

The Province of Orissa consists, geologically as well as geographically, of two very distinct portions: the one, a belt of nearly flat country, from fifteen to fifty miles in breadth, extending along the coast; and the other, an undulating area, broken by ranges of hills, in the interior. The former is entirely composed of alluvial formations, the greater portion of its surface being probably composed of deposits from the great river Mahánadí, and the smaller streams, the Bráhmaní and Baitaraní. Near its western limit alone, a few hills of gneissose rock rise from the alluvial plain, especially between the Bráhmaní and Mahánadí. The inland hill-tract, on the other hand, is chiefly composed of rocks of very ancient date, so completely altered and crystallized by metamorphic action, that all traces of their original structure are lost, and any organic remains which they may originally have contained obliterated. The same rocks cover an enormous area in Eastern and Southern India, and are usually spoken of, in works on Indian geology, as the crystalline or metamorphic series.

Further exploration in the little known Tributary States will doubtless show the existence of beds belonging to other formations; but hitherto the only instance in which any considerable area is known to be occupied by rocks of later date than the metamorphics, is in the tract known as the Tálcher coal-field, in the estates of Tálcher, Angul, Bánki, Athmallik, and Dhenkánal; also in Rádhákol in the Central Provinces. High up the Bráhmaní a series of very slightly altered or unaltered rocks, comprising slates with jasper, quartzites, and schistose beds, are known to occur; but it has not been ascertained whether they

extend into the district administered from Cattack, though they are believed to occupy portions of Keunjhar and Bonái; the latter in the Chotá Nágpur Division.

The greater portion of the Tributary States have never been explored geologically, and the information procurable as to their character is most imperfect. It is possible that other coal-fields may exist, though not probable. Even the Tálcher coal-field has only received, for the most part, a very hurried examination. Excluding the formations of which no accurate information has been obtained, such as the slates, quartzites, and jasper, believed to be found in Keunjhar and Bonái, the following is a list, in descending order, of the rock systems hitherto described as existing in Orissa :—(8.) *Blown sands.* (7.) *Alluvium. b.* River delta deposits. *a.* Older alluvium of coast plain. (6.) *Laterite.* (5.) *Cattack or Athgarh sandstone.* (4.) *Mahádeva or Pánchet sandstone and grit.* (3.) *Dámodar sandstone, shale, and coal.* (2.) *Tálcher sandstone, shale, silt and boulder bed.* (1.) *Metamorphic or crystalline rocks.*

The following is a brief description of the characters of each of these formations as found in Orissa :—

1. METAMORPHIC OR CRYSTALLINE ROCKS. — These consist of various forms of gneiss, mica-schist, hornblend-schist, quartzite, etc. Crystalline limestone, common in many parts of India, has not been hitherto observed in Orissa. True granite is found in the form of veins traversing the gneiss, and is of various forms, the most common being a highly crystalline variety, with but little mica, and passing into pegmatite, of the kind known as graphic granite, beautiful specimens of which have been found in parts of the Tributary States. This granite is apparently, for the most part at least, of cotemporaneous age with the metamorphism of the gneiss. But besides this, the gneiss itself frequently passes into a granitoid form, perfectly undistinguishable in blocks from granite, but which, when in place, is usually found to retain every here and there traces of its original lamination, and to pass by insensible degrees into a distinct laminated gneiss of the usual form.

Other prevalent forms are ordinary gneiss, composed of quartz, felspar, and mica; hornblendic gneiss, in which the mica is replaced by hornblend, the latter mineral sometimes forming a very large proportion of the rock; and quartzose gneiss, in which the felspar and mica, or hornblend, are in very small proportion, and the quartz predominates. This gradually passes into quartzite, in which felspar and mica are either wanting, or occur only in very small quantities.

The above may be considered the prevailing forms of the crystal-

line rocks; but there are others of less frequent occurrence. Amongst these are diorite, amphibolite, syenite, and a magnesian rock, a kind of potstone. These may all very possibly be of later date than the mass of the metamorphics, though the serpentine-like potstone appears to be fairly intercalated.

2. TALCHER GROUP.—The lowest beds associated with the coal-bearing strata are themselves destitute of useful fuel, and well distinguished mineralogically from the Dámodar or coal-bearing rocks. They were first separated from the overlying beds in Orissa, and named after the estate in which they were found. They consist, in the case of the Tálcher coal-field, of blue nodular shale, fine buff or greenish sandstone, and of extremely fine silt beds, often interstratified with sandstone more or less coarse in texture, in thin alternating laminæ. The sandstones frequently contain felspar grains, which are usually undecomposed. In the sandstone and fine silty shale, rounded pebbles and boulders of granite, gneiss, and other crystalline rocks abound, some of them as much as four or five feet in diameter. This remarkable formation is known as the boulder bed. It is peculiar to the Tálcher group, and has been found in India wherever that group has been examined; in the valleys of the Dámodar, the Son, the Narbadá, and the Godávarí, as well as in that of the Bráhmaní.

Of this singular association of large blocks of stone in a fine matrix but few other instances are known, the most remarkable one being that of the 'boulder clay' of Great Britain and other countries, which is now considered by most geologists to be of glacial origin. The boulder bed of the Tálcher group differs entirely from the 'boulder clay,' however. In the former the fine matrix is distinctly stratified, and the boulders are rounded, neither of which is the usual condition of the boulder clay. But the origin of such a rock is in both instances surrounded by the same difficulty, viz. that any current of water which could round and transport the boulders would sweep away, instead of depositing, the fine sand, clay, and silt in which they are embedded. Yet nothing is clearer than that the two were deposited together. Ice is rather a startling power to invoke in endeavouring to explain the phenomena of rocks found in a tropical climate; but without its agency it appears difficult, in the present state of geological knowledge, to account for the Tálcher boulder bed.

In 1855, Mr. Blanford suggested (Memoirs of Geological Survey of India, i. p. 49) that these beds might have been deposited in a high table-land, and that the association of the boulders was perhaps due to ground ice. The advance of cosmical theories since that time has rather tended to increase the possibility of periods of cold having

occurred in the course of the earth's history, some of which may have been sufficiently severe to affect the tropics, or portions of them. Tálchers have now been found over so extensive an area, that the probability of their having been deposited at any considerable elevation above the sea has greatly diminished, and some observers are inclined to consider them marine,—a view which Mr. Blanford does not share. No other hypothesis, however, not involving ice-action has been offered which accounts satisfactorily for their peculiarities.

3. DAMODAR GROUP.—Above the Tálcher, or occasionally resting upon the metamorphic rocks, without the intervention of any other sedimentary beds, is found a series of sandstone and shale, with beds of coal. The sandstone is mostly coarse grey and brown rocks passing into grits. They are usually more or less felspathic, the felspar being decomposed and converted into clay, and are often ferruginous. Blue and carbonaceous shale, often more or less micaceous, and ferruginous shaly sandstone, are characteristic of this group. Fossil plants, chiefly consisting of ferns, such as *Glossopteris*, *Pecopteris*, *Trizygia*, *Equisetaceæ*, and *Calamites*, and above all, peculiar stems divided into segments (*Vertebraria*), believed to be roots of unknown affinities, are frequently found. Most of the fossil species found, perhaps all, are characteristic of the Dámodar formation.

The peculiar interest attaching to this group of rocks is, however, derived from its being the only one in which workable coal has been found in the peninsula of India. All the coals of Ráníganj and the other fields of the Dámodar valley, as well as all those of the Narbadá valley, and of other parts of the Central Provinces, are in Dámodar rocks. So far as they have hitherto been examined, the coals of Tálcher appear to be of inferior quality to those of Ráníganj, the Narbadá, and other localities; but the field in the Tributary States has by no means been thoroughly explored as yet.

4. MAHADEVA GROUP. — Above the coal-bearing series in the eastern part of the Tálcher coal-field, a considerable thickness of coarse sandstone, grits, and conglomerates is found, quite different in character from the beds of the Tálcher and Dámodar groups, and resting unconformably upon them. These rocks are usually coloured with various shades of brown, and are frequently very ferruginous. The separate beds composing them are massive, and not interrupted, as the Dámodar sandstones frequently are, by partings of shale. They form hills of considerable size in the State of Rádhákol, in the Central Provinces.

It is by no means clear that these beds are the representatives of the group in the Narbadá valley, to which the name Mahádeva

was first applied; but there is a general subdivision of the rocks throughout the greater portion of the Indian coal-fields into three principal groups. To the higher of these the term Mahádeva has been given in the Narbadá valley and in Orissa, and Pánchet in Bengal; and until a re-examination of the Orissa beds has enabled their relations to that of other coal-fields to be more accurately made out than was possible when they were first mapped, it appears best to retain the name first applied to them.

5. CATTACK OR ATHGARH GROUP.—South-west of the town of Cattack is a considerable area, occupied by grit, sandstone, and conglomerate, with one or more beds of white or pinkish clay. The beds are very similar in general character to those last described; but there is no evidence of their connection, and it appears at least as probable that the Cattack rocks are of later date. No fossils have been found in these beds except some obscure impressions, apparently of vegetable origin, in the clays.

6. LATERITE. — The laterite of Orissa is evidently of detrital origin, and consists essentially of small pisolitic nodules, chiefly composed of hydrated oxide of iron (brown hæmatite) and coarse quartz sand, cemented together more or less perfectly into either a firm, though somewhat vesicular, rock, or into a less coherent mass, or at times remaining in a loose gravelly condition, and thus passing by various gradations into a sandy clay, with a few pisolitic iron nodules. As a rule, the forms containing most iron are the most coherent, and *vice versa.* The more solid sorts are largely used as building stone, having the peculiar but important property of being softest when first cut, and of hardening greatly on exposure.

Beneath the detrital laterite, especially when a felspathic form of the metamorphic rocks occurs, the decomposed upper portion of the latter is frequently greatly impregnated with iron, and converted into a kind of lithomarge, which closely resembles the detrital laterite in appearance, and is employed for the same purposes. The massive form of laterite which caps many of the higher hills in Peninsular India, and which is more compact than the detrital laterite, is not known to occur in Orissa.

7. ALLUVIUM.—(*a*) OLDER ALLUVIUM OF COAST PLAIN.—In the neighbourhood of the hills, and frequently for many miles from their base, the alluvium of the plains consists of clay and sand, usually more or less commingled, and in most places containing calcareous concretions (*Kankar* or *Ghutin*) and pisolitic ferruginous nodules. This deposit passes by insensible degrees into laterite on the one hand, and into the more recent delta alluvium on the other; but in its typical form it is

well distinguished from both, by being more sandy, and containing nodular carbonate of lime, or Kankar.

The age of this alluvial deposit is shown by its surface having been modified and rendered uneven by the action of rain and streams, so that the country composed of it is more or less undulating. Whether this formation, or any portion of it, is of marine origin, is a question hitherto undetermined. So far as it has been yet examined, it appears to be in Orissa unfossiliferous. The greater portion has doubtless been produced by deposits washed down by the great rivers from the higher country to the westward; and it appears likely that a portion of these have been deposited along the coast. But other deposits have been in all probability formed upon the original marine beds by the additional accumulations brought down by streams and washed by rain from the hills, so that it is questionable whether the lower marine beds which probably exist are anywhere exposed.

b. RIVER DELTA DEPOSITS.—In the neighbourhood of the great rivers the soil is finer and the country level, the greater portion of it being yearly inundated by flood-waters, and receiving a fresh deposit from them, except in places where they are kept from overflow by artificial means. The alluvium thus formed is generally highly fertile, but the country is swampy, and often malarious. As above pointed out, the only character by which this modern alluvium can be distinguished is the flatness of its surface, showing that the area occupied by it is one of deposition, and not of denudation. Usually also it is less sandy than the older alluvium, and Kankar is not of frequent occurrence in it, though a thin layer of it often covers deposits of calcareous sand and clay, from which the later deposit can with difficulty be distinguished.

8. BLOWN SAND.—Along the coast, as at Purí, large tracts of ground are covered with sand blown inland from the beach. The nature and origin of the formation is obvious, being simply a deposit of sand carried onward from the margin of the sea by the monsoon, and sometimes rising into ridges and cliffs.

In proceeding to give a sketch of the geological character of the different Districts and States of which Orissa is composed, I shall first describe the Districts of Balasor, Cattack, and Purí, and subsequently those Tributary States with regard to which any definite information has been obtained.

BALASOR.—Almost the whole District consists of alluvial deposits. Metamorphic rocks occur in the Nílgiri hills, along the western boundary; but they scarcely enter the district anywhere, and in no case are found more than a mile or two within the boundary. Laterite, fre-

quently massive, forms in some places a narrow fringe to the mountains. A few sandhills skirt the shore in the north-eastern part of the District, which to the east of the Subanrekhá extend from three to four miles inland. The older alluvium occupies the greater portion of the District, the flat river alluvium forming the southern part near the Baitaraní, Kharsuá, and Bráhmaní Rivers, and a tract in the north-east near the Subanrekhá. Around Balasor itself the soil is rather sandy, and contains laterite gravel. Concretionary carbonate of lime (Kankar) is widely distributed, especially in the western part of the district.

IN CATTACK, as in Balasor, the largest part of the district consists of alluvium, the older form with an undulating surface, occupying, however, a much smaller area proportionally, and being confined to the north-western part of the District, nearly all of the remainder being composed of the flat deltas of the Mahánadí and Bráhmaní. Along the sea-coast blown sand is generally found, but it only forms a narrow belt.

Between the Rivers Bráhmaní and Mahánadí, in the Kilas of Balrámpur, Madhupur, Darpan, Kalkalá, Dálijorá, and scattered over the country to the east in Parganá Alti, there are numerous hills, all more or less isolated, and all composed of gneiss. Along the Bráhmaní, near Balrámpur, and for some miles to the south-east, the rock is compact and granitoid. Farther south it is less compact, and usually soft from partial disintegration near the surface. It is marked with numerous red blotches, the remains of decomposed garnets. This soft decomposing gneiss is sometimes quarried, and used for building. The hills in this part of the country are not accurately represented on the Revenue Survey maps; but those shown in the Topographical Survey maps of the Tributary States are very correctly drawn.

No laterite occurs around the more eastern hills, but around those in the neighbourhood of the road from Calcutta to Cattack there is frequently a narrow fringe, often conglomeritic, as if it had been originally a beach deposit; and to the west of the high road to Cattack, the metamorphic hills are surrounded in general by broad terrace-like flats, frequently stretching from hill to hill; and when they do not do so, affording evidence that the laterite is continued beneath the intervening alluvium. This laterite is frequently employed for building purposes.

PURI, the southern District of Orissa, contains a much larger extent of hard rocks than either Cattack or Balasor. All the country near the coast, and a broad tract in the north-east of the district, are alluvial; but the western part of the area is occupied by laterite, sandstone, and metamorphic rocks. There is a very small extent of the older undulat-

ing alluvium. Almost all the eastern part of the District, and the country extending from the Mahánadí to the Chilká Lake, is perfectly flat, and consists of the newer or delta alluvium. Hence its liability to flooding from the Mahánadí. Hills of blown sand extend along the whole coast, and frequently are disposed in two or three principal ranges, the first close to the shore, the second from one to two miles inland; occasionally another range is still farther from the sea.

The greater portion of Dompárá and Dándimál, south-west of the town of Cattack, consists of the Athgarh sandstone. To the west these beds appear to rest on the metamorphic rocks, and they have a general dip to the east and south-east, at low angles not exceeding 5° or 6°. They are surrounded on all sides by laterite and alluvium. At their apparent base to the west is a coarse conglomerate, the pebbles chiefly of quartzite. These rocks contain one band at least of white clay, which is largely dug, and used for whitewashing houses, and for other purposes. South-west of the sandstone countries, and west of Khurdhá, there is a broad undulating plain, partly covered with laterite, through which the gneiss rises at intervals. In the extreme west of the District around Bolgarh and Goriáli, there are two very barren ranges of no great height, running east and west, and formed of compact, rather granitoid gneiss.

From this point, where the boundary of the District turns to the eastward, as far as the Chilká Lake, only detached hills occur, all of gneiss, with intervening plains of laterite and alluvium. The group of hills near Chatármá are of granitoid gneiss; most of the others are of garnetiferous gneiss, with quartzose bands. Such are Khurdhá Hill, with the smaller elevations in the neighbourhood, and also the hills east of the Cattack and Ganjám road between Rámeswar and Mongläpurí.

A precisely similar country extends to the west of the Chilká Lake. The lake itself was formerly a part of the sea, first rendered shallow by deposits from the mouths of the Mahánadí. It is now entirely cut off from the sea by a spit of sand formed by the violent winds of the southern monsoon. Near the south-western extremity of this spit there is a considerable deposit of estuarine shells, at a height of twenty to thirty feet above the present flood-level of the Chilká. The shells found—*Cytherea casta* and *Area granosa*—have not been observed living in the Chilká, and both are estuarine species, not occurring in the sea itself; but the former is now abundant in the estuary connecting the lake with the sea. This deposit appears to afford evidence of a recent elevation of the land.

There can be but little doubt that the Chilká is gradually

diminishing in size and in depth; but as it receives no streams of importance, the quantity of water charged with sediment poured into it is small, and its rate of decrease is probably very slow. Its fauna is peculiar, and deserves more attention than it has hitherto received. Indeed, the whole estuarine fauna of the Indian backwaters and deltas has been but imperfectly worked out; and further information is extremely desirable, above all, regarding the mollusca, for the illustration of the fossils of the many deposits which have doubtless accumulated under very similar circumstances in past times.

TRIBUTARY STATES.—Of the geology of the States of Morbhanj, Pál Lahará, Narsinhpur, Barambá, and Tigariá, lying north of the Mahánadí, and of all the States south of the Mahánadí River, except Bánki, viz. Bod, Daspallá, Khandpárá, Nayágarh, and Ránpur, nothing definite is known. It is pretty certain that a large proportion of their area consists of metamorphic rocks, and it is possible that no others may be found.

Of Keunjhar and Nílgiri, only the edges bordering on the Balasor District have been examined. Hindol has been traversed; portions of Dhenkánal and Athmallik have been examined; whilst in Angul, Tálcher, and the little estates of Athgarh and Bánki, a more general survey has been made, but still far from a complete or detailed one.

NILGIRI AND KEUNJHAR.—The hills bordering on Balasor consist entirely of metamorphic rocks of various kinds. In the northern part of the range gneiss is found, so granitic that the direction of the foliation can scarcely be ascertained. It appears to be nearly parallel with the escarpment of the range. Granite veins are scarce; but greenstone dykes, or pseudo-dykes, many of them of great size, abound, and most of them, if not all, appear to run parallel with the gneissic foliation. These facts render it probable that the dykes in question are really beds so altered as to be perfectly crystalline. A kind of black magnesian rock, intermediate in composition between potstone and serpentine, approaching the former in appearance but less greasy in texture, is quarried to some extent, chiefly for the manufacture of stone dishes, plates, and bowls. The stones are roughly cut into shape in the quarry, and finished partly with tools, and partly on a lathe in the villages. The rock employed is found interfoliated with the gneiss in several places, and is quarried at the villages of Sántrágodiá and Gujádihá, a few miles south of Nílgiri, at a spot two or three miles from Jugjuri, and in scattered localities to the north-west.

A few miles west-south-west of Jugjuri, near Parkpadá, the granitoid rocks are replaced by a tough, hard, indistinctly crystalline hornblendic rock, resembling diorite, but exhibiting more foliation than is

seen in the hills near Nílgiri. Still farther to the south-west quartz schist appears in a well-foliated form, occasionally containing talc. A detached hill near Bákipur consists of this rock, and so does the whole south-west portion of the range as far as Rogadi, except in the immediate neighbourhood of the Sálandí River, where it leaves the hill. Here syenite occurs, which forms a detached hill near Dárápur. The southern portion of the range is free from the trap dykes which are so conspicuous to the north-east of Jugjuri. All the western portions of Keunjhar are unexplored.

TALCHER, ANGUL, and ATHMALLIK.—*The Tálcher Coal-field.*—These States comprise by far the most interesting geological area in Orissa and its dependencies. The basin of sedimentary rocks known as the Tálcher coal-field is surrounded on all sides by metamorphics. This basin extends about seventy miles from west by north to east by south, with a general breadth of from fifteen to twenty miles, its eastern extremity at Karakprasád on the Bráhmaní River being nearly fifty miles north-west of Cattack town. Its western limit is not far from Rámpur, in the State of Rádhákol in the Central Provinces, and it comprises nearly the whole of Tálcher, and a considerable portion of Angul and Rádhákol, with smaller parts of Bánki, Athmallik, and Dhenkánal. The western half of this field is chiefly occupied by the rocks already described as belonging to the Mahádeva group, conglomerate and coarse sandstone, which form hills of considerable height in a very wild, jungly, and thinly inhabited country. At the period when the Tálcher coal-field was examined, nothing whatever was known of the classification of rocks which has since been made out by the Geological Survey in the various coal-fields of India. Indeed, one of the very first and most important distinctions, that of the Tálcher group, below the coal-bearing division, was made in this region, as already mentioned. The boundaries of the Mahádevas and Dámodars on the map in the Memoirs Geol. Surv. of India is merely a rough approximation made from memory, and partly by guess, after quitting the field. The differences of the rocks had been noted in the field, but their area had not been mapped.

It is by no means improbable that the Dámodar coal-bearing rocks will hereafter be found in portions of this area. Indeed, they have been observed at the village of Patrápadá.

In the extreme west of the field Tálcher beds occur in the upper part of the valley of a stream tributary to the Tikariá, near Deincha, and also near the village of Rámpur, in Rádhákol. In both cases Mahádeva rocks appear to rest directly on them, without the intervention of any Dámodars.

Besides occupying the western part of the field, the Mahádevas are found in two places along the northern boundary, which is formed by a fault of considerable dimensions. One of these places is near the villages of Bodaharna and Dereng, where the upper beds occur as a narrow belt, five or six miles from east to west, their presence being marked by low hills of hard conglomerate. Farther to the west they recur in another isolated patch, forming the rise called Khandgiri Hill. This hill consists of sandstone, capped by conglomerate, the pebbles from which weather out and cover the sides of the hill, concealing the sandstone beneath.

The northern part of the field in which these outliers of the Mahádevas occur is much cut up by faults, or, to speak more correctly, by branches of one great fault. These faults are in some places marked by a quartzose breccia, containing fragments of sandstone and other rocks. The vein of breccia varies in breadth. At the village of Karjang it is so largely developed that it forms a hill of considerable height. Between the branches of the fault Tálcher beds and metamorphics occur; north of all the faults metamorphics only are found.

The eastern part of the field, from near Karjang on the Tikariá River, and Kánkurái on the Tengrá, to east of the Bráhmaní, is principally composed of Dámodar rock. These may usually be recognised by the occasional occurrence of blue and black shale, the latter carbonaceous, and sometimes containing coal. The general section of the beds, so far as could be made out in a difficult country, much obscured by surface clays and jungle, is as follows:—

1. Interstratifications of blue and black shale, often very micaceous, with ironstone and coarse felspathic sandstone. These are at least 1500 feet thick.
2. Carbonaceous shale and coal, about 150 feet.
3. Shale and coarse sandstone, the latter prevailing towards the base; thickness doubtful, but not less than 100 feet.

If this be correct, the coal only occurs upon one horizon. It is by no means impossible, however, that other beds may be found. Coal is known to be exposed in three places. The most westwardly of these is at Patrápadá, in Angul, a village on the Medúliá Jor, a tributary of the Aulí River. Here some six feet of carbonaceous shale and coal are seen in the bank of the stream, capped by clay, upon which rest the coarse grits of the Mahádeva group. The area occupied by the beds is small. The next place, which is far better known, is at Gopálprasád, in Tálcher, on the Tengrá River. The rocks at this spot are nearly horizontal for a long distance, and the coal-bed extends for some miles along the banks of the stream above the village. It also recurs lower

down the stream. The thickness of the bed is considerable, but its quality is inferior, the greater portion being excessively shaly and impure. Selected specimens contain upwards of thirty per cent. of ash, but it by no means follows that better coal may not be found; and even the inferior fuel would be useful for many purposes if any local demand existed; and from the horizontality of the beds, a large quantity might be procured with very little labour. The general dip in the neighbourhood is to the north; and any attempts at working the coal on a large scale, or further explorations by boring, should be made north of the Tengrá stream.

The third locality is in a small stream running into the Bráhmaní from the west, just north of the town of Tálcher. Beds lower than the coal are seen on the bank of the Bráhmaní, at the Rájá's residence. The carbonaceous shale with coal is exposed about 400 yards from the river, in the small watercourse. Only two or three feet are visible. The dip is north-west, and the coal is covered by micaceous, sandy, and shaly beds. A boring north-west of this spot would test the bed fairly.

There is another locality in which the section can be tested, at the village of Kánkarápál, in Angul, about ten miles north-west of Gopálprasád. It is by no means certain that the Gopálprasád shale is close to the surface here; but the spot is the summit of an anticlinal, and some black shale seen in the stream resembles the uppermost portion of the rocks of Gopálprasád. It is highly probable that closer search will show other places where coal is exposed at the surface. The south-eastern part of the field consists of Tálcher beds, in which boulders are only occasionally found towards the base. They are micaceous near the village of Porongo. Above the silt-bed containing the boulders, there is a fine sandstone frequently containing grains of undecomposed felspar. There is no chance of coal being found in this portion of the basin; that is, south of a line drawn from east by north to west by south running about two miles south of Tálcher.

In several places in the Tálcher field iron is worked. The ore varies. Sometimes the ironstones of the Dámodar beds are used, but more frequently surface concretions, the supply of which is necessarily limited. Sometimes the little pisolitic nodules of the laterite are found washed from their matrix, and deposited in sufficient quantities in alluvial formations to be worth collecting. In one instance, the ore was derived from the metamorphic rocks, and brought from a distant locality. It resembled the mixture of peroxide of iron and quartz found at the outcrop of metallic lodes, and known as 'gossan' in Cornwall. The method of smelting the iron in small furnaces is similar to that used in other parts of India; but the bellows employed

are worked with the foot,—a peculiarity only found in the south-western dependencies of Bengal and Orissa. An account of the process, with figures, by Mr. H. F. Blanford, will be found in Dr. Percy's Metallurgy of Iron and Steel, p. 261.

The arenaceous ironstones of the Dámodar group would doubtless yield a large supply of ore.

DHENKANAL and HINDOL.—These regions require scarcely any notice. So far as is known, they consist of metamorphic rocks, except the western extremity of the first-named State, which comprises the eastern end of the Tálcher basin. The metamorphic rocks are of the usual descriptions.

ATHGARH.—The northern and western parts of this State consist of metamorphic rocks. Along the Mahánadí, from near Cattack to the boundary of the State, within three or four miles of the village of Tigariá, there is a belt four or five miles broad, of the same 'Cattack' sandstones as are seen south of the Mahánadí, in the Purí district,—being, in fact, a portion of the same basin. The rocks are precisely similar—coarse sandstone and conglomerate, with one or more bands of white clay.

BANKI.—West of the sandstone area in the Purí district, there is a broad expanse of alluvium running for a considerable distance to the southward from the Mahánadí. West of this, again, metamorphic rocks occur. There is a fine semicircle of detached hills running from Bánkigarh to the village of Baideswar. The hills are partly of garnetiferous gneiss, partly of compact hornblendic gneiss—Bánki Peak of very quartzose gneiss. The strike varies in a peculiar manner, being very irregular, but with a general tendency in all the hills to dip towards the centre of the semicircle. South of the hills is a large undulating plain, partly covered with laterite.—W. T. B.

APPENDIX VI.

SPECIMENS OF ORISSA FLORA.

N.B.—I had not the opportunity of making anything like a complete collection, but the following represent the general character of the Flora in the Orissa Sundarbans, and establish their similarity to the vegetable products of the Gangetic Sundarbans.—W. W. H.

(*a*) *Specimens collected on Long Island, off False Point Lighthouse, at the mouth of the Mahánadí.*

1. *Bani:* mangrove roots; bushes of 3 feet high as the first growth of new silt; and from 20 to 30 feet high on older formations. Avicennia officinalis, L. Sp. fl. 110; Schauer in De Candolle, Prodrom. xi. p. 700. (Av. tomentosa R. Br. in Wight Icon. t. 1481.)
2. *Teluguni:* grows to 18 feet high, and flowers at the extremities of the twigs. Ægiceras majus, Gaertn. f. Fruct. i. 216, t. 46. Miquel, Flor. Ind. Batav. ii. p. 1031.
3. *Rái:* 15 to 18 feet high, broad and bushy; may be either Rhizophora mucronata. Lamk., or Rh. conjugata. L.
4. *Khírwá* (or *Khíruá*): 20 to 25 feet high. Sonneratia apetala; Ham. in De Candolle, Prodrom. iii. 231; Wight and Arnott, Prodrom. i. 327. Roxb. Fl. Ind. ii. 506.
5. *Uru* (or *Uruá*): height 15 feet; small red flower, edible fruit. Ægialitis annulata. R. Br. Prod. Nov. Holl. i. 246; Gaud. Freyc. It. Bot. p. 446, t. 51; Miq. Fl. Ind. Bat. ii. 995.
6. *Gnuá:* height 12 feet, small white flower and berry, not edible. Excoecaria Agallocha, L. De Candolle, Prodrom. vol. xv. part 2, p. 1220.
7. *Baniá* (or *Bariá*): height 12 feet, bushy, fair sized, yellow flower.

Hibiscus tiliaceus, L. Sp. pl. 976. De Candolle, Prodrom. i. 454. Miq. Fl. Ind. Bat. i. part 2, p. 153.

8. *Rasuniá* (or *Rasuriá*): height 8 to 12 feet, small white clustering flowers pendent. Kandelia Rheedii, W. A. Is the same as No. 7.
9. *Sundari Gnuá:* height 10 feet. Sonneratia acida. De Candolle, Prodrom. iii. 231; W. A., Prod. i. 327; Roxb. Fl. Ind. ii. 506; Wight Icon. t. 340.
10. *Agávâthu* (or *Agávâth*): height 9 feet.
11. *Karansá:* height 12 feet; twigs succulent; abundant and succulent foliage. Pongamia glabra, Vent. Malm. t. 28; De Candolle, Prodrom. ii. 416; W. A., Prod. i. 262; Wight Icon. t. 59.
12. *Pítá-mári:* about 15 feet high.
13. *Gilá:* height 7 to 9 feet; broad and bushy. Probably Mimosa rubicaulis. Lamk. in De Candolle, Prod. ii. 429; W. A., Prod. i. 268. (M. octandra, Roxb. Corom. Pl. II. t. 200.)
14. *Harkath:* about 3½ feet high. Acanthus ilicifolius. L., Roxb. Fl. Ind. iii. p. 32. (Dilivaria ilicifolia Juss. Wight Icon. t. 459.)
15. *Guriá:* very tall thorn, about 30 feet high; small leaf, Dalbergia spinosa, Roxb. Fl. Ind. iii. 233; W. A., Prod. i. 266.
16. *Kurária:* a shrub 2 feet high. Probably Tephrosia purpurea, Pers, De Candolle, Prodrom. ii. 251; Wight and Arnott, Prodrom. i. 213.
17. *Kápatár:* height 6 feet. Clerodendron inerme. Gaertn. Miq. Fl. Ind. Bat. ii. 868.
18. *Antabáji* (*Ananta-báji*): a bushy edible vegetable, 3 inches high, growing in sand. Appears to be Microrrhynchus asplenifolius, De Candolle, Prodrom. vii. 181.
19. *Burburká:* a succulent creeper. Hydrophylax maritima. L. f., De Candolle, Prodrom. iv. 576. W. A., Prod. i. 441; Roxb. Corom. Pl. III. t. 233.
20. *Máharará:* a creeper growing on sand; like a convolvulus, with a delicate purple flower; eaten by men and deer.
21. *Bajramári:* a creeper growing on sand. Sida cordifolia, L. De Candolle, Prod. i. 464; Roxb. Fl. Ind. iii. 177; W. A., Prod. i. 58.
22. *Kansári* (or *Kansári-latá*): convolvulus, growing on sand. Ipomœa pes-capræ, Swartz; Chois, in De Candolle, Prodrom. ix. 349.
23. *Kentiá:* a long ground creeper with small white flower.
24. *Tartaruá:* an edible creeper growing on sand. Chamissoa nodiflora, Mart. Nov. Act. N. C., xiii. 286; Moq. Tand. in De

Candolle, Prodrom. xiii. part 2, 249; Miq. Fl. Ind. Bat. i. 1029; Wight Icon. t. 1770.

25. (*Annamedh*): a ground creeper. Atylosia scarabæoides. Bth. in Pl. Jungh. i. 242; Miq. Fl. Ind. Bat. i. 173.
26. *Chimarí-nai:* a very long creeper. Probably Hemidesmus Indicus. R. Br. De Candolle, Prod. viii. 494; Miq. Fl. Ind. Bat. ii. 465.
27. *Agni-kumárí:* a small sand plant, 2 inches high. Grangea maderaspatana, Poir., De Candolle, Prodrom. v. 373; Miq. Fl. Ind. Bat. ii. 39; Wight Icon. t. 1097.
28. *Ghar-puriá:* a sand creeper. Spermacoce articularis. L. fil. Suppl. 119; Miq. Fl. Ind. Bat. ii. 322; W. A., Prod. i. 438.
29. *Náliá:* a reed-like grass, grows in mud up to 5 feet high.
30. *Arsá:* broad flag, grows in mud, 3 feet high, white flower.
31. *Rávaneswar-dárhi* (Beard of Rávan): large tufted grass. Spinifex squarrosus L. Miq. Fl. Ind. Bat. iii. 474.

(*b*) *Specimens collected on the Sundarbans of the Mainland.*

1. *Sundarí:* grows from 30 to 40 feet high. Appears to be Heritiera minor, Lamarck's Dictionary, iii. 299. De Candolle, Prodrom. i. 484.
2. *Jamu:* 30 feet high. Perhaps Eugenia fruticosa, Roxb. Fl. Ind. ii. 418; Wight, Ill. ii. p. 16 (Syzygium fruticosum, De Candolle, Prodrom. iii. 260).
3. *Anáchárá:* from 4½ to 6 feet high. Glycosmis pentaphylla, Correa in Ann. d. Museum, tom. vi. p. 384; Oliver in proceedings of Linnæan Society, V Suppl. p. 37.
4. *Kukurchaliá:* a medicinal plant, 6 feet high. Pavetta Indica, L. in De Candolle, Prodrom. iv. 490; Wight and Arnott, Prodrom. i. 431; Bot. Reg. 3, t. 198; Wight Icon. t. 148.
5. *Cháludhuá* (or *Cháldudá*): 5 or 6 feet high.
6. *Susumár:* 15 to 18 feet high. Xylocarpus obovatus. A. Juss. in Mém. Mus. xix. p. 344; Miquel, in Flor. Ind. Batav. vol. i. part 2, p. 546.
7. *Rasuniá:* 9 feet high. Kandelia Rheedii, Wight and Arnott, Prodrom. i. 34; Arnott in Annals of Natural History, i. 365; Wight, Illustr. i. p. 809, t. 892; Miquel, in Flor. Ind. Batav. vol. i. part 1, p. 585.
8. *Háwáli:* 15 feet high. Thespesia populnea, Correa in Annal. Mus. ix. 290. De Candolle, Prodrom. i. 456; Wight and Arnott, Prodrom. i. p. 32; Miquel, Flor. Ind. Bat. vol. i. part 2, p. 150.

m

9. *Ságara-báṭuá:* from 4 to 5 feet high. Perhaps Eugenia fasciculata, Wall.
10. *Khírkuri* (or *Khíri-kuri*): a thorn from 10 to 12 feet high. Carissa diffusa, Roxb. Flor. Ind. ii. 524. De Candolle, Prodrom. p. 333; Miquel, Flor. Ind. Batav. ii. 399.
11. *Nite* (or *Nitái*): a long thorny creeper, Mezoneuron cucullatum. Wight and Arnott, Prodrom. i. 283.
12. *Nálká* (or *Nárká*, *Nálukà* or *Nárukâ*): from 15 to 18 feet high.
13. *Gwáguá:* from 7 to 9 feet high.
14. *Geriá:* an edible vegetable, 1½ feet high. Suæda Indica. Moq. Tand. in Nouv. Ann. Sc. Nat. xxiii. p. 316; Wight Icon. t. 1796; Miquel, Fl. Ind. Bat. i. part 1, p. 1021.
15. *Singará:* from 15 to 18 feet high. Cynometra bijuga, Spanogh in Miquel Flor. Ind. Bat. i. part 1, p. 78. In Bengal, Singará is applied very generally to *Trapa bispinosa.*
16. *Jaulá* (or *Jaurá*): a sort of Arbor Vitæ looking shrub, generally about 4 feet, but grows up to 12 feet high. Tamarix Gallica. L. De Candolle, Prodrom. iii. 96; var. *B.* Indica, Ehrenb. (T. Indica. De Candolle, Prodrom. iii. 96. Roxb. Fl. Ind. ii. 100).
17. *Hartál* (or *Hartár*): grows up to 10 or 12 feet high. Probably Phœnix paludosa, Roxb. Fl. Ind. iii. 789.

LIST OF THE PRINCIPAL VEGETABLE PRODUCTS OF THE PURI DISTRICT.

FLOWERING PLANTS. — Rangbán (Indian shot); Canna Indica. Gangsiuli (night flowering Jasmine); Nyctanthes arbor tristis. Mallik (Jasmine); Jasminum sambac. Mach-mach (Indian cork-tree); Millingtonia hortensis. Rangani (scarlet ixora); Ixora coccinea. Háti-surá; Heliotropium Indicum. Lál-chitá; Plumbago rosea. Banbanká (Moon-flower); Calonyction grandiflorum. Kansárinatá (goat's-foot creeper); Ipomea pes-capræ. Dudá-tárak (Elephant creeper); Argyreva speciosa. Haragaurá (Indian balsam); Impatiens balsamina. Ains-káti; Vinca alba and rosea. Kaniyári (Oleander); Nerium odorum. Málatiphul (a clove-scented creeper); Echites caryophyllata. Kát-chámpá; Plumieria acuminata. Khambsiju; Cereus phyllanthus. Sapt-pheniyá (prickly pear bush); Opuntia vulgaris. Phurush; Lagerstrœmia Indica. Goláb; Rosa centifolia. Asháruyá; Capparis acuminata. Barun; Çratæva trifolia. Rangkain (red water-lily); Nymphæa rubra.

Dhabalá-kain (lotus); Nymphæa lotus. Subdikain (blue water-lily); Nymphæa cyanea. Padam (rose-coloured lotus); Nelumbium speciosum. Broad-leaved water-lily; Euryale ferox. Ponang (Alexandrian laurel); Calophyllum inophyllum. Chámpá; Michelia champaca. Pándhuyá; Erythrina Indica. Simli (red cotton-tree); Bombax Malabaricum. Aparájitá; Clitorea ternatea. Solo; Aschynomene aspera. Bayajanti; Sesbania Egyptiaca. Dayaná; Artemisia Indica. Gendu; Tagetes patula. Kesardá; Eclipta prostrata. Surjyamukhi (Sunflower); Helianthus annuus. Mánikchanni (Indian camomile); Chrysanthemum Indicum. Ansarishá; Cleome pentaphylla. Keya (fragrant screw-pine); Pandanus odoratissimus. Kánchan; Bauhinia acuminata. Chin-chámpá; Artabotrys odoratissimus. Krishna-chúrá; Poinciana pulcherrima. Mandár (Shoe-flower); Hibiscus rosa sinensis. Muljuyáti (Henna); Lawsonia alba. Angutí; Clerodendrum phlomoides.

Dyes.—Surbuli (Indian Madder); Hedyotis umbellata. Achhu; Morinda tinctoria. Gulbás and Viláyati Haldi (Arnotto); Bixa orellana. Kámulgundi; Rottlera tinctoria. Manjistá; Rubia Mungista. Raktachandan (red sandal-wood); Pterocarpus santalinus.

Fibres.—Nalitá (jute); Corchorus olitorius. Chhani (Sun-hemp); Crotolaria juncea. Kánuriyá; Hibiscus cannabinus. Bárabarshí (American Aloe); Agave Americana. Kapá (Indian Cotton); Gossypium Indicum.

Woods.—Kendu (ebony); Diospyros melanoxylon. Sál; Shorea robusta. Piyásál; Buchanania latifolia. Sisu; Dalbergia sissoo. Gambhári; Gmelina arborea. Panas; Artocarpus integrifolia. Jeut; Artocarpus lacoocha. Kadamba; Nauclea cadamba. Kelikadamba; Nauclea parviflora. Deb-dáru (mast-tree); Guatteria longifolia. Tíniyá; Acacia speciosa. Jháu; Casuarina muricata. Bat (Banyan-tree); Ficus Indica. Dimri; Ficus glomerata. Pipal; Ficus religiosa. Mandakaich; Adenanthera pavonina. Bághánkurá; Alangium decapetalum. Baul; Mimusops elengi. Chárkuli; Mimusops hexandra. Oao; Dillenia speciosa. Heinjal; Barringtonia acutangula. Indrámai; Odina wodier. Karanj; Pongamia glabra. Itá; Sapindus detergens.

Fruits, Vegetables, etc.—Haldi (turmeric); Curcuma longa. Sáru; Colocasia antiquorum. Pání-sáru; Colocasia Indica. Adá (ginger); Zingiber officinalis. Pán (betel-leaf); Chavica betle. Báigun (brinjal); Solanum melongena. Lankámarich (chili); Capsicum annuum. Golápjám (rose-apple); Eugenia aquea; Syzigium jambolanum. Bhunyár; Cordia myxa. Barkuli (jujube-tree); Ziziphus jujuba. Lanká-Am; Anacardium occidentale. Amba (mango); Mangifera Indica. Kadali (plantain); Musa paradisiaca. Nichu (litchi); Nephelium lichi. Kar-

mangá; Averrhoa carambola. Belambi; Averrhoa bilimbi. Kandmúl; sweet potato. Sajiná (horse-radish tree); Moringa pterygosperma. Karendá; Carissa Carandas. Ankakuli; Carissa diffusa. Pitáság; Mollugo spergula. Pichu (peach); Amygdalus Persica. Mahul; Bassia latifolia. Mekhuya (custard-apple); Anona squamosa. Ata; Anona reticulata. Múlá (radish); Raphanus sativus. Parbatkáuriyá (Roselle, or red sorrel); Hibiscus sabdariffa. Bhendi (esculent okro); Abelmoschus esculentus. Tentuli (tamarind); Tamarindus Indica. Múg (green gram); Phaseolus Mungo. Birhi; Phaseolus Roxburghii. Koloth (horse gram); Dolichus biflora. Lobhiya-chhai; Dolichus Simensis. Khoriyá; Lablab vulgaris. Páthásim; Lablab cultratus. Bút (chick-pea, or Bengal gram); Cicer arietinum. Harar; Cajanus Indicus. Maká or Butá (Indian corn); Zea mays. Kagjinebu (acid lime); Citrus Bergamia. Kamlanebu (sweet orange); Citrus aurantium. Bátábinebu (Shaddock); Citrus decumana. Turanja (lemon); Citrus limonum. Notiyá; Amarantus campestris. Khará; Amarantus frumentaceus. Puruni-ság; Portulacca oleracea. Methi (fenugreek); Trigonella fœnum-grœcum. Nariyal (cocoa-nut); Cocos nucifera. Tál (Palmyra palm); Borassus flabelliformis. Khejuri (Indian date); Phœnix sylvestris. Guya (Betel-nut palm); Areca catechu. Narkuli (country gooseberry); Cicca disticha. Anyalá; Emblica officinalis. Amra (hog-plum); Spondias mangifera. Chhachhindará (snake-gourd); Trichosanthes anguina. Karena; Momordica charantia. Janhi; Luffa acutangula. Ksharbuj (melon); Cucumis melo. Phuti; Cucumis Momordica. Kakuri (cucumber); Cucumis sativus. Tarbuj (water-melon); Cucurbita citrullus. Baitákakháru (red-gourd); Cucurbita maxima. Páni-kakharu; Cucurbita pepo. Láu (bottle-gourd); Lagenaria vulgaris. Khamb-Alu (yam); Dioscorea alata. Amrita-bhanda (Papaw); Carica papaya. Sanpuri (pine-apple); Ananassa sativa. Agasthi; Agati grandiflora. Piyáj (onion); Allium ascalonicum. Rasun (garlic); Allium sativum. Pui (Malabar nightshade); Basella alba. Kaith (wood-apple); Feronia Elephantum. Bel; Ægle Marmelos. Bhursungá (curry-leaf tree); Bergera Kœnigii. Rang-cháuliyá (red guava); Psidium pomiferum. Dhaba-cháuliyá (white guava); Psidium pyriferum. Pál (arrowroot); Curcuma augustifolia. Jámkuli (blackberry); Eugenia Jambolana. Saptá (sapodilla); Achras sapota. Sakarkand (Tapioca); Janipha Manihot. Rási (rae-seed); Sesamum Indicum. Rái-sarishá (white mustard-seed); Sinapis alba. Sarishá (black mustard-seed); Sinapis nigra.

Drugs.—Ghikumári (Indian Aloe); Aloe Indica. Dhablá-Dhuturá (white-flowered thorn-apple); Datura alba. Kalá Dhuturá (yellow-flowered thorn-apple); Datura fastuosa. Bheji-begun; Solanum

jacquini. Akránti; Solanum diffusum. Nabhi-ánkuri; Solanum trilobatum. Phutphutiyá; Cardiospermum halicacabum. Kuchilá (strychnia-tree); Strychnos nux vomica. Katak; Strychnos potatorum. Arksha; Calotropis gigantea. Mendi; Tylophora asthmatica. Uttururi; Daemia extensa. Chimrinaimul (country sarsaparilla); Hemidesmus Indicus. Khaeyá (catechu-tree); Acacia catechu. Bába (Babool-tree); Acacia Arabica. Ursmáru (yellow thistle, or Mexican poppy); Argemone Mexicana. Podiná (Mint); Mentha sativa. Gais; Phlomis Zeylanica. Dhalá tulasi (sweet basil); Ocymum basilicum. Kalá-tulasi (holy basil); Ocymum sanctum. Rukuni-Hátpochá; Plectranthus aromaticus. Beguniyá (five-leaved chaste-tree); Vitex negundo. Hálim; Lepidium sativum. Palás (bastard teak); Butea frondosa. Gokshurá; Pedalium Murex. Chitá; Plumbago Zeylanica. Kainch (wild liquorice); Abrus precatorius. Káládáná; Pharbitis nil. Isvarjatá; Aristolochia Indica. Pitakáruya; Wrightia antidysenterica. Gab (Castor-oil plant); Ricinus communis. Ganjái (gunja, or common hemp plant); Cannabis sativa. Tundaporá; Toddalea aculeata. Bach (sweet flag); Acorus calamus. Sunári; Cassia fistula. Pánmauri; Anethum panmori. Barjuyán (Bishop's weed-seed); Ptychotis ajowan. Maruyá (rue); Ruta graveolens. Gugul; Boswellia thurifera. Dálim (pomegranate); Punica granatum. Gilá (Bonduc nut); Guilandina bonduc. Nim (Neem-tree); Azadirachta Indica. Bádám (almond-tree); Terminalia catappa. Báhárá; Terminalia belerica. Harirá; Terminalia chebula. Guluchi; Cocculus cordifolius. Báigab; Jatropha curcas. Hárbhángá; Vitis quadrangularis.

Miscellaneous.—Bet (rattan cane); Calamus rotang. Bhuin Bet; Calamus reticulatus. Sárengá Báns (Bamboo); Bambusa arundinacea. Belengi Báns; Bambusa tulda. Dhán (paddy); Oryza sativa. Durbbághás (hay grass); Cynodon dactylon. Akshu or Akhu (Sugar-cane); Saccharum officinarum. Ankshuyá; Saccharum spontaneum. Bená (sweet-scented grass); Andropogon muricatum. Samu (a famine grain); Panicum frumentaceum. Agarjathá; Panicum Coromandelianum. Kákuriyá ghás; Eleusine Egyptiaca. Mándiyá; Eleusine Coracana. Barjhánjhe; Pistia stratiotes. Páni-sioli (tank-weed for cleansing water); Menyanthes cristata. Muyámuyá; Sagittaria sagittifolia. Rakta pitta; Ventilago Madraspatana. Chákandá; Cassia tora. Pisiná; Maba buxifolia. Dumdumá; Monetia tetracantha. Kánti; Cæsalpinia sepiaria. Gokshra; Tribulus lanuginosus. Háti-ánkusá; Pisonia aculeata. Dokáná-siju; Euphorbia antiquorum. Patra-siju; Euphorbia Morila. Ksharisiju; Euphorbia tirucalli. Káinchi-Kakuri; Coccinia Indica. Sáhárá; Epicarpurus Orientalis. Bainch; Flacourtia sepiaria. Cháldbriyá; Antidesma pubescens.

APPENDIX VII.

A CHRONICLE OF THE KINGS OF ORISSA,

FROM 3101 B.C. TO 1871 A.D.

BASED ON THE PALM-LEAF RECORDS OF JAGANNATH (see p. 199 of my ORISSA, vol. i.), as digested in the Purúshottama Chandriká by Bábu Bhabánícharan Bandopádhyáya, collated with Mr. Stirling's Essay in the Asiatic Researches, vol. xv. (Ed. 1825), and his posthumous Paper in the Bengal Asiatic Society's Journal, vol. vi. part ii. 1837.

B.C.

3101-3089. YUDHISHTHIR, a monarch of the Mahábhárata, of the Lunar Race of Delhi. Reigned 12 years. [According to Stirling (Asiatic Researches, vol. xv.), 3095-3083 B.C.]

3089-2358. PARIKSHIT, a monarch of the Mahábhárata, of the Lunar Race of Delhi. Reigned 731 years. [According to Stirling, 3083-2326 B.C.]

2358-1807. JANMEJAYA, a monarch of the Mahábhárata, and the patron of that work; sprung from the Lunar Race of Delhi. Reigned 551 years. [According to Stirling, 2326-1810 B.C.]

1807-1407. SANKAR DEVA. Reigned 400 years. [According to Stirling, 1810-1400 B.C.]

1407-1037. GAUTAM DEVA. Extended the Kingdom of Orissa to the Godávarí River. Reigned 370 years. [According to Stirling, 1400-1027 B.C.]

1037-822. MAHENDRA DEVA. Founded the town of Rájmahendri as his capital. Reigned 215 years. [According to Stirling, 1027-812 B.C.]

822-688. ISHTA DEVA. Reigned 134 years. [According to Stirling, 812-678 B.C.]

688-538. SEVAK DEVA. Reigned 150 years. [According to Stirling, 678-528 B.C.]

B.C.

538-421. Bajra Deva. In this reign Orissa was invaded by Yavanas from Márwár, from Delhi, and from Babul Des—the last supposed to be Iran (Persia) and Cabul. According to the Palm-Leaf Chronicle, the invaders were repulsed. Reigned 117 years. [According to Stirling, 528-421 B.C.]

421-306. Narsinh Deva. Reigned 115 years. Another chief from the far north invaded the country during this reign, but he was defeated, and the Orissa prince reduced a great part of the Delhi kingdom. The monarch excavated the tank at Dántan near Jaleswar, which exists at this day. [According to Stirling, this prince was called Sarasankha, and reigned 421-306 B.C.]

306-184. Mankrishna Deva. Reigned 122 years. Yavanas from Kashmír invaded the country, but were driven back after many battles. [According to Stirling, this king was called Hansa, and reigned 306-184 B.C.]

184-57. Bhoj Deva. A great prince, who drove back a Yavana invasion, and is said to have subdued all India. Reigned 127 years. [Stirling's date here coincides with that of the Palm-Leaf Record; and when this is the case, I do not give his figures.]

A.D.

57 B.C. to 78 A.D. Two reigns, that of Vikramaditya and his brother Sakaditya. Neither the Purúshottama Chandriká nor Stirling gives separate dates for these reigns, but the two extended over 135 years. Vikramáditya made himself master of all India, but was slain by a rebel conqueror from Southern India, named Sáliváhan, identified as his brother Sakáditya, who succeeded him. The current or Sakábda era dates from the end of this reign, 77-78 A.D. During the above fourteen reigns, 3179 (or, according to Stirling, 3173) years of the Kali Yug elapsed.

A.D.

78-143. Karmarjit Deva; reigned 65 years.

143-194. Hatkeswar Deva; reigned 51 years.

194-237. Bir Bhuvan Deva; reigned 43 years. [According to Stirling, the name of this prince was Tribhuvan.]

237-282. Nirmal Deva; reigned 45 years.

282-319. Bhim Deva; reigned 37 years.

319-323. Sobhan Deva. During this reign of 4 years, the maritime invasion and conquest of Orissa by the Yavanas under Red-Arm (Rakta Báhu) took place. The king fled with

A.D.

the sacred image of Jagannáth, and with those of his brother and sister, Balbhadra and Subhadrá, and buried them in a cave at Sonpur. The story of Rakta Báhu's waging war with the ocean, which overwhelmed his forces and formed the Chilká Lake, will be found in chapter ii. of my ORISSA. The lawful prince perished in the jungle, and the Yavanas ruled in his stead. [According to Stirling, the reign commenced 318 A.D.]

323-328. CHANDRA DEVA, who, however, was only a nominal king, as the Yavanas were completely masters of the country. They put him to death in A.D. 328. [Stirling calls this prince Indra Deva.]

328-474. Yavana occupation of Orissa, 146 years. [According to Stirling, these Yavanas were Buddhists.] See my ORISSA, chap. v.

474-526. YAYATI KESARI, who expelled the Yavanas and founded the Kesari or Lion Dynasty. Reigned 52 years. This prince brought back the image of Jagannáth to Purí, and commenced the Temple City to Siva at Bhuvaneswar. His capital was at Jájpur. [According to Stirling, he reigned from 473 to 520 A.D.]

526-583. SÚRJYA KESARI; reigned 57 years.

583-623. ANANTA KESARI; reigned 40 years. [According to Stirling, this and the previous reign extended from 520 to 617 A.D.]

623-677. ALABU KESARI, who completed the Temple of Bhuvaneswar, reigned 54 years. [According to Stirling, he was called Lalát Indra Kesari, and began to reign 617 A.D.]

With the exception of five kings, Stirling does not give the names of the other monarchs of the Kesari Dynasty from Lalát Indra Kesari to the extinction of the line. He merely says that 32 uninteresting reigns followed, extending over a period of 455 years. The Palm-Leaf Records, however, give the names of 40 princes. Only three of the five kings referred to by Stirling can be identified in the list.

677-693. KANAK KESARI; reigned 16 years.

693-701. BIR KESARI; reigned 8 years.

701-706. PADMA KESARI; reigned 5 years.

706-715. BRIDDHA KESARI; reigned 9 years.

715-726. BATA KESARI; reigned 11 years.

A.D.

726-738. Gaja Kesari; reigned 12 years.

738-740. Basanta Kesari; reigned 2 years.

740-754. Gandharva Kesari; reigned 14 years.

754-763. Janmejaya Kesari; reigned 9 years.

763-778. Bharat Kesari; reigned 15 years.

778-792. Kali Kesari; reigned 14 years.

792-811. Kamal Kesari; reigned 19 years.

811-829. Kundal Kesari; reigned 18 years; built the Temple of Márkandeswar in Purí.

829-846. Chandra Kesari; reigned 17 years.

846-865. Bir Chandra Kesari; reigned 19 years.

865-875. Amrita Kesari; reigned 10 years.

875-890. Bijaya Kesari; reigned 15 years.

890-904. Chandrapal Kesari; reigned 14 years.

904-920. Madhusudan Kesari; reigned 16 years.

920-930. Dharma Kesari; reigned 10 years.

930-941. Jana Kesari; reigned 11 years.

941-953. Nripa Kesari. A warlike and ambitious prince, who founded the city of Cattack. Reigned 12 years. [Stirling dates the foundation of Cattack by this prince in 989 A.D.]

953-961. Makar Kesari. Constructed a long and massive stone revetment to protect the city of Cattack from inundation. Reigned 8 years. [Stirling calls this prince Markat Kesari, and places the construction of this work in 1006 A.D.]

961-971. Tripura Kesari; reigned 10 years.

971-989. Madhav Kesari; (according to Stirling) built the fortress of Sárangarh on the south bank of the Kátjurí River, opposite the city of Cattack; reigned 18 years.

989-999. Gobinda Kesari; reigned 10 years.

999-1013. Nritya Kesari; reigned 14 years.

1013-1024. Narsinh Kesari; reigned 11 years.

1024-1034. Kurma Kesari; reigned 10 years.

1034-1050. Matsya Kesari; built the great bridge across the Athárunálá, at the entrance to Purí, existing to this day; reigned 16 years.

1050-1065. Baraha Kesari; reigned 15 years.

1065-1078. Baman Kesari; reigned 13 years.

1078-1080. Parasu Kesari; reigned 2 years.

1080-1092. Chandra Kesari; reigned 12 years.

1092-1099. Sujan Kesari; reigned 7 years.

A.D.

1099-1104. SALINI KESARI; reigned 5 years. His queen built the Nát Mandir or Dancing Hall of the Temple of Bhuvaneswar.

1104-1107. PURANJAN KESARI; reigned 3 years.

1107-1119. VISHNU KESARI; reigned 12 years.

1119-1123. INDRA KESARI; reigned 4 years.

1123-1132. SUVARNA KESARI; reigned 9 years. The Kesari Dynasty ended with this prince, who died childless, and was succeeded by Chorgangá, a king from the south. See my ORISSA, chap. v. Another Palm-Leaf Record containing a list of the Kings of Orissa, and kept by a Bráhman family of Purí, gives a different account of the extinction of the line. It states that Básudeva Báhanpati, a powerful officer of the Orissa Court, having been driven from the royal presence, went to the Carnatic, and instigated Chorgangá of that country to invade Orissa, which he did, conquering Cattack, and establishing a new dynasty. [According to Stirling, 36 princes of the Kesari line ruled over Orissa 473-1131 A.D., of whom, however, he only gives the names of nine. One of these, Barujyá Kesari, is said to have quadrupled the land-tax, and another, Surajya Kesari, to have reduced it to the old rate.]

1132-1152. CHORGANGA, the founder of the Gangávansa Dynasty; reigned 20 years. His memory is preserved by the name of a quarter in Purí city, called the Churang Sái, and also by a tank in that town bearing the same name. [Stirling places this reign 1131-1151 A.D.]

1152-1166. GANGESWAR.—His territories are said to have extended from the Ganges to the Godávarí, and to have included five royal cities, Jájpur, Chaudwár, Amrávatí, Chatná, and Biránasí, or Cattack. As a penance for a crime, he excavated a splendid tank called Kausalyá Gangá, between Pippli and Khurdhá. [According to Stirling, he ascended the throne 1151 A.D.]

1166-1171. EKJATAKAM DEVA; reigned 5 years.

1171-1175. MADAN MAHADEVA; reigned 4 years.

1175-1202. ANANG BHIM DEO, one of the greatest of the Orissa kings. He made a survey of his whole kingdom, measuring it with reeds; and built the present Temple of Jagannáth. Reigned 27 years. [According to Stirling, he ascended the throne in 1174 A.D.]

A.D.

1202-1237. Rajrajeswar Deva; reigned 35 years. [Stirling places his death in 1236 A.D.]

1237-1282. Languliya Narsinh; reigned 45 years; built the great Sun Temple at Kanárak on the Sea (the Black Pagoda).

1282-1307. Kesari Narsinh; reigned 25 years. This prince filled up the bed of the river Balágandi, which ran between the temple and the country house of Jagannáth, and which obstructed the cars that carried the idols at the great festival. Previously a double set of cars had been required for the conveyance of the images. [According to Stirling, this prince was called Kabir Narsinh, and erected the bridge across the Athárandlá at the entrance to Purí; the bridge which the Temple Records ascribe to Matsya Kesari, who reigned 1034-1050.]

1307-1327. Pratab Narsinh; reigned 20 years.

1327-1329. Gatikanta Narsinh; reigned 2 years.

1329-1330. Kapil Narsinh; reigned 1 year.

1330-1337. Sankha Bhasur; reigned 7 years.

1337-1361. Sankha Basudeva; reigned 24 years.

1361-1382. Bali Basudeva; reigned 22 years.

1382-1401. Bir Basudeva; reigned 19 years.

1401-1414. Kali Basudeva; reigned 13 years.

1414-1429. Nengatanta Basudeva; reigned 15 years.

1429-1452. Netra Basudeva; reigned 23 years.

1452-1479. Kapilendra Deva, originally a common herd-boy, tending the flocks of his Bráhman master, but afterwards raised to the throne. Reigned 27 years.

1479-1504. Purushottama Deva.—The King of Conjevaram refused to marry his daughter to this prince, on the ground of the Orissa Dynasty holding the office of Sweeper to Jagannáth. Purúshottama accordingly invaded the southern country, defeated the Conjevaram king, and carried off his daughter, whom he swore should be married to a sweeper, in revenge for her father's refusal. The minister to whom he entrusted the execution of his order, brought forth the princess at the next great festival of Jagannáth, as the king himself was publicly performing his lowly office before the god, and presented her in marriage to his master.

1504-1532. Pratab Rudra Deva; reigned 28 years. A learned man, deeply versed in the Sástras. His reign was disturbed by theological discussions as to the merits of the

A.D.

Buddhistic and Bráhmanical religions. Stories are told of how sometimes one, sometimes the other, of these religions obtained supremacy over the mind of the prince, and how the followers of each were persecuted by turns. The great Vishnuvite reformer Chaitanya visited Purí during this reign, and finally converted the king to the Vaidik faith. The Temple of Baráha at Jájpur was constructed by this king; and the Annalists state that he extended his conquests as far as Cape Comorin, capturing the city of Vizianagaram *en route*. The Afgháns, however, made incursions into Orissa and plundered Purí, the idols being removed and secreted beforehand. [According to Stirling, he reigned 1503-1524 A.D.]

1532-1533. KALUYA DEVA, son of the last-mentioned king. Reigned 1 year, when he was murdered by Gobind Bidyádhar, the Prime Minister. [According to Stirling, 1524-1529.]

1533-1534. KATHARUYA DEVA, THE LAST OF THE GANGAVANSA LINE, brother of the previous king, like him assassinated by Gobind Bidyádhar, who now ascended the throne, after murdering all of the royal blood.

1534-1541. GOBIND BIDYADHAR; reigned 7 years. Disputes with the Muhammadans as to the possession of Rájmahendri. [According to Stirling, he began to reign 1533 A.D.]

1541-1549. CHAKRA PRATAB; reigned 8 years.

1549-1550. NARSINH JANA; reigned 1 year.

1550-1551. RAGHU RAM CHHOTRA; reigned 1 year.

1551-1559. MUKUND DEVA, or Telingá Mukund Deva; reigned 8 years. The last of the independent kings of Orissa, and a man of great courage and ability. He constructed a large landing-place (ghát) on the Huglí at Tribení, near the town of Huglí. During his reign, Kálápahár, the general of the Muhammadan King of Bengal, invaded the province with a large force. The Orissa king was defeated and slain in a battle outside the walls of the capital, Jájpur, and the monarchy overthrown, A.D. 1559. [According to Stirling, 1555 A.D.] Kálá Pahár plundered the holy city of Purí. The Muhammadan writers place the conquest of Orissa in 1567-68, and after a careful comparison of authorities, I have adopted this last date. See chap. vi. of my ORISSA.

1559-1578, or 1568-1578. An anarchy of 19 years, after which Rám Chandra Deva, the son of the Prime Minister of the previous reign, was elected to the throne. During the anarchy the Afghán

A.D.

governor of Orissa, Dáúd Khán, invaded Bengal, but was defeated by the Mughuls under Munim Khán, and the province was annexed to the Mughul Empire. [According to Stirling, the anarchy lasted 1558-1579 A.D.]

1578-1607. RAM CHANDRA DEVA, the first prince of the present family of Khurdha; reigned 29 years. Rájá Todar Mall, Akbár's general, and afterwards Prime Minister, was deputed to restore order in Orissa. He confirmed the native prince on the throne, but towards the end of this reign the province was disturbed by a rival claimant, who appealed to the Emperor Akbár. Rájá Mán Sinh, another Hindu general of the Mughul Empire, was sent to adjust the quarrel, which he managed amicably by bestowing on the claimant the Fort of Al and its dependencies. [According to Stirling, the reign lasted 1580-1609 A.D.]

1607-1628. PURUSHOTTAMA DEVA; reigned 21 years; was slain in battle. From this period the Orissa kings were merely Rájás of Khurdhá. See my ORISSA, chap. vi.

1628-1653. NARSINH DEVA; reigned 25 years. Invasion of Orissa by a Muhammadan general from the south, named Sháhbáz. The king finding himself unable to resist the invaders, was compelled to purchase peace by the payment of a large sum of money. This prince brought the images of the sun and moon from the Temple of Kanárak to Purí. [According to Stirling, he reigned 1630-1655 A.D.]

1653-1654. GANGADHAR DEVA; reigned 1 year. [According to Stirling, 1655-1656 A.D.]

1654-1662. BALABHADRA DEVA; reigned 8 years. [According to Stirling, 1656-1664 A.D.]

1662-1690. MUKUND DEVA; reigned 28 years. [According to Stirling, 1664-1692 A.D.]

1690-1713. DRABYA SINH DEVA; reigned 23 years. [According to Stirling, 1692-1715 A.D.]

1713-1718. KRISHNA DEVA; reigned 5 years. [According to Stirling, 1715-1720 A.D.]

1718-1725. GOPINATH DEVA; reigned 7 years. [According to Stirling, 1720-1727 A.D.]

1725-1736. RAM CHANDRA DEVA; reigned 11 years. [According to Stirling, 1727-1743 A.D.]

1736-1773. BIR KISOR DEVA; reigned 37 years. Habíb Khán, a Muhammadan officer of the Marhattá army, invaded and

A.D.

wrested the province from this king, but afterwards restored it. In 1753 the Marhattás finally took possession of the province. [Stirling places this reign 1743-1786 A.D.]

1773-1791. DRABYA SINH DEVA; reigned 18 years. [According to Stirling, 1786-1798 A.D.]

1791-1810. MUKUND DEVA; ruled 19 years. Occupation of Orissa by the British and expulsion of the Marhattás in 1803. In the following year this prince headed a rising of the Khurdhá people, but was defeated and taken prisoner. After being kept in confinement for some time in Ċattack and Midnapur, he was allowed to retire to Purí.

1810-1857. RAM CHANDRA DEVA; ruled 47 years.

1857-1871. DIBYA SINH DEVA, the present Rájá of Khurdhá. He is the fifteenth of the line of princes who succeeded in 1575 to the Orissa kingdom, as a fief of the Mughul Empire, after the anarchy which followed the extinction of the Gangavansa dynasty. The above Chronicle, taken from Hindu sources, does not truly represent the facts of Orissa history after the Musalman conquest in 1568. See my ORISSA, chap. vi.

W. W. H.

APPENDIX VIII.

THE MUHAMMADAN HISTORY OF ORISSA,

FROM 1510 TO 1751,

AS TOLD BY THE PERSIAN ANNALISTS.

THE following Abstract has been compiled from the Akbar-námah, Aín-i-Akbarí, Makhzan-i-Afghání, Badáoní, and Tuzuk-i-Jahángírí. For the early connection of the Muhammadans with Orissa between the thirteenth and sixteenth centuries, see chapter vii. of my Work on that Province. I am indebted to Professor Blochmann's MSS. for the materials from which the following events are taken:—

A.D. 1510 (?)—Muhammadan invasion of Orissa by Ismá'íl Ghází, General of Husain Sháh, King of Bengal.

A.D. 1520 (?)—Battle near Kandapalli (Condapilly), and conquest of Telingána by Sultán Kulí Kutb Sháh, the monarch of the Southern Muhammadan Kingdom.

A.D. 1567–68 (A.H. 975).—Afghán conquest of Orissa by Sulaimán Kararání, King of Bengal and Behar. The last independent native king of the Province, Rájá Mukund Deo, was slain in the battle fought outside the walls of his capital, Jájpur. Siege and capture of the city and temple of Purí by Kálá Pahár.

A.D. 1571 (A.H. 979).—Conquest of Rájmahendri by Malik Náib, general of Ibráhím Kutb Sháh, King of Golconda. (A.D. 1550 to 1581.)

A.D. 1572 (A.H. 980).—Death of Sulaimán, who is succeeded by his son Báyazíd as King of Bengal, Behar, and Orissa. Báyazíd murdered by Hánsú, his brother-in-law. Dáúd Khán, second son of Sulaimán, succeeds. Khán Jahán Afghán, appointed Governor of Orissa, and Kutlu Khán Lohání, Governor of Púrí.

A.D. 1574 (A.H. 982).—Behar conquered by the Emperor Akbar, and flight of the rebel King of Bengal, Dáúd Khán, to Orissa. First

invasion of Orissa by the Mughuls under Munim Khán and Akbar's Hindu general, Rájá Todar Mall.

A.D. 1574, 25th March (A.H. 20th Zíkad'a 982).—Great battle of Tukaroi or Mughulmárí, near Jaleswar, between the Mughuls under Munim and Rájá Todar Mall, and the Afgháns under Dáúd, in which the latter were completely defeated. After the battle, Munim advanced upon Cattack, where a peace was concluded, Dáúd ceding Bengal and Behar to the Mughuls, in return for which he was acknowledged as King of Orissa by the Emperor Ákbar.

A.D. 1575 (A.H. 983).—Afghán invasion and occupation of Bengal by Dáúd Khán, from Orissa, on the death of Munim Khán, Akbar's Governor of Bengal and Behar. Husain Kulí Khán Jahán appointed Governor of Bengal and Behar by the Emperor, in succession to Munim Khán.

A.D. 1576, 12th July (A.H. 15th Rabí-ul-Sání 984).—Battle of Agmahall (Rájmahal), in which the Afghán insurgents were completely defeated, and their leader, Dáúd Khán, slain by the Imperial troops under Husain Kulí Khán Jahán, the new Governor of Bengal.

A.D. 1576 (A.H. 984).—The Afgháns again defeated near Húglí, and retreat into Orissa. Nominal annexation of the Province to the Delhi Empire.

A.D. 1578 (A.H. 986).—Death of Husain Kulí Khán Jahán, Governor of Bengal; succeeded by Muzaffar Khán.

A.D. 1579 (A.H. 987).—Masúm Khán Kábulí, appointed Governor of Orissa by Akbar.

A.D. 1580 (A.H. 988).—Rebellion in Orissa and Bengal, under the leadership of Masúm Khán, the newly-appointed Governor of Orissa. Muzaffar Khán, Governor of Bengal, killed by the rebels. Orissa cleared of Mughul Imperialists. The rebels, assisted by the Afgháns of Orissa and Ghorágháṭ, occupy Behar. Usurpation of the throne of Orissa by Kutlú Khán, a Lohání Afghán. Battle of Salímábád, south of Bardwán, in which Kutlú Khán defeats Mírzá Naját, Akbar's Governor of Sátgáon, and extended his power as far as the Dámodar. Mírzá 'Azíz Kokah Khán i A'zam appointed Governor of Behar, Bengal, and Orissa, by the Emperor Akbar.

A.D. 1581 (A.H. 989).—Kutlú defeats and kills Kiyá Khán Gang, in Orissa.

A.D. 1582 (A.H. 990).—Behar and Western Bengal recaptured by Mírzá 'Azíz, Akbar's Governor. His officers are unsuccessful in their operations against Kutlú Khán of Orissa.

A.D. 1583 (A.H. 991).—Battle on the Dámodar river, south of Bardwán, near Mughulmárí, in which Kutlú Khán was defeated by

Sádik Khán and Sháh Kulí Mahram. Death of Kálá Pahár, the conqueror of Purí.

A.D. 1584 (A.H. 992).—Peace concluded between Akbar's officers and Kutlú Khán, the latter being allowed to retain Orissa. Akbar disapproves of the treaty made by his generals with Kutlú.

A.D. 1590 (A.H. 998).—Rájá Mán Sinh appointed Governor of Bengal and Behar. He invades Orissa, staying at Madáran, south-west of Bardwán, during the rains. Kutlú Khán defeats the Imperial troops, captures Jagat Sinh, son of Rájá Mán Sinh, at the battle of Dharpur, and occupies Bishenpur. Death of Kutlú Khán. His minister 'Isa concludes a peace with Rájá Mán Sinh, and releases Jagat Sinh. Purí ceded to Akbar. (A.H. 998 to 1000.) 'Isá's administration of Orissa.

A.D. 1592 (A.H. 1000).—'Isá dies. The two sons of Kutlú Khán, Khwájah Sulaimán and Khwájah 'Usmán, seize Purí, and break the treaty. Rájá Mán Sinh invades Orissa a second time. Great battle at Banápur, in which the Afghán Orissa rebels were completely defeated by Mán Sinh. Capture of Jaleswar, Cattack, and Fort Al by the Imperial troops. The Afgháns make a last but ineffectual stand at Fort Sárangarh, then submit, the two sons of Kutlú Khán becoming vassals of the Delhi Empire. Orissa finally annexed to Akbar's Empire. Rájá Mán Sinh appointed Governor of Behar, Bengal, and Orissa. Rájá Rám Chandra Deo, the native king of Orissa, and three of his family, made grandees of the Delhi Court.

A.D. 1598 (A.H. 1007).—Jagat Sinh officiating Governor during the temporary absence of his father Rájá Mán Sinh. Revolt of the Orissa Afgháns under 'Usmán. Defeat of the Imperial troops under Mahá Sinh, a younger son of Rájá Mán Sinh, by the Afgháns under 'Usmán, near Bhadrak. Occupation of Orissa and south-western portion of Bengal by the Afghán rebels.

A.D. 1599 (A.H. 1008).—Return of Rájá Mán Sinh; he defeats 'Usmán near Sherpur 'Atáí, north of Bardwán, and pursues him to Mohespur, near Bishenpur. Southern Orissa retained by the Afgháns.

A.D. 1605 (A.H. 1014).—Death of Akbar, and accession of Jahángír. Mán Sinh reappointed as Governor of Bengal and Orissa.

A.D. 1606 (A.H. 1015).—Mán Sinh recalled, and Kutb-ud-dín, Jahángír's foster brother, appointed Governor of Bengal and Orissa.

A.D. 1607 (A.H. 1016).—Kutb-ud-dín, killed at Bardwán by Sher Khán, husband of Núr Jahán. Jahángír Kulí Khán, Governor of Behar, appointed to act as Governor of Bengal and Orissa.

A.D. 1607 (A.H. 1016).—Orissa created a separate Governorship; Háshim Khán appointed Governor.

A.D. 1611 (A.H. 1020).—Rájá Kalyán Mall appointed Governor of Orissa, vice Háshim Khán, transferred to Kashmír. The Afgháns under Usmán make a last effort to regain their independence, but are defeated, and their leader killed by Shujáat Khán near the Subanrekhá river. All Orissa, with the exception of Khurdhá and Rájmahendri, finally annexed to Delhi. Mukarram Khán appointed Governor of Orissa.

A.D. 1618 (A.H. 1027).—Mukarram Khán defeats the Rájá of Khurdhá, and annexes his territory to the Delhi Empire. Rájmahendri is acknowledged to be independent.

This defeat ended the struggle between the Afgháns and the Mughuls, and Orissa remained simply a province of the Mughul Empire until 1751, when the Marhattás obtained it. The remnants of the Afgháns still used it as a basis for marauding expeditions; one of which, in 1695–98, attained the dignity of a revolt, and temporarily wrested Bengal and Orissa from the Empire.

In the following pages I have generally adopted Mr. Stirling's and Major Stewart's accounts:—

A.D. 1621 (A.H. 1031).—Prince Sháh Jahán rebels against his father, Emperor Jahángír, and takes possession of Orissa before its Deputy-Governor, Ahmad Bey, could prepare for resistance. He recruits his army by enlisting the Afghán chiefs with their followers into his service, and takes possession of Bardwán.

A.D. 1634 (A.H. 1043).—Sháh Jahán, now Emperor of Delhi, gives a *firman* to the English, allowing them to trade with their ships in Bengal; but Azim Khán, then Governor of Bengal, Behar, and Orissa, restricted their vessels from entering any other port than Pippli, near Balasor, and the English established their first factory in Bengal at that place.

A.D. 1636 (A.H. 1046).—Surgeon Gabriel Boughton cures a daughter of the Emperor who had been dreadfully burnt. As a reward to Mr. Boughton, his nation is allowed to trade in Bengal and Orissa free of all duties.

A.D. 1640 (A.H. 1050).—Sultán Shujá, Governor of Bengal, Behar, and Orissa, licensed the English to build factories at Balasor and Hugli, in addition to that at Pippli, in reward for the success of Surgeon Boughton in curing a sick lady of the Governor's seraglio.

A.D. 1685–1688 (A.H. 1097–1100).—East India Company makes war with the Mughuls. The Balasor Governor threatens our factory, and imprisons two of our English servants. Captain Heath accordingly attacks and plunders the town. (29th November 1688.)

A.D. 1695 (A.H. 1107).—Revolt of Subhá Sinh in Bengal. He is joined by the Orissa Afgháns under Rahim Khán. Bengal and Orissa fall into the hands of the rebels, but are afterwards reconquered by the Imperial troops.

A.D. 1706 (A.H. 1118).—Murshid Kulí Khán, Governor of Bengal, Behar, and Orissa, appoints his son-in-law, Shujá-ud-dín Muhammad Khán, Deputy-Governor of Orissa, with two Bráhmans, Bhupati Ráy and Kisor Ráy, as his secretaries. The District of Midnapur, which heretofore formed a part of Orissa, was at this time annexed to Bengal.

A.D. 1725 (A.H. 1139).—Death of Murshid Kulí Khán Shujá-ud-dín, Governor of Bengal, Behar, and Orissa. He appoints Muhammad Taki, his illegitimate son, as his Deputy in Orissa. On the north, the remainder of the old Jaleswar Division (Sarkár) lying between Tamluk, Midnapur, and the river Subanrekhá, was, with the exception of a few small Fiscal Divisions, annexed to Bengal. On the south, the Nizám's Government took possession of the estate of Tikáli Raghunáthpur and the Chilká Lake, belonging to the Rájá of Khurdhá (Rájá Rám Chandra Deo), who rebelled, but, after a long struggle, he was captured and taken as a prisoner to Cattack. The priests of Jagannáth fled with the sacred image across the Chilká Lake, on account of the oppressions of the Deputy. Twenty-two police stations were established in the jurisdiction of the Khurdhá estate, in order to keep in check the turbulent spirit of the people.

A.D. 1734 (A.H. 1147).—Death of Muhammad Taki Khán. Murshid Kulí Khán, son-in-law of Shujá-ud-dín, appointed Deputy-Governor of Orissa. He induced the priests to bring back the idol of Jagannáth to the temple, as the absence of it seriously affected the public revenues. Important financial reforms in the Province, inaugurated by Mír Habib, who assisted the Deputy as his Diwán. Excessive cheapness of food; rice selling at 320 lbs. for a shilling in Bengal.

A.D. 1739 (A.H. 1151).—Shujá-ud-dín dies. Sarfaráz Khán becomes Governor of Bengal, Behar, and Orissa.

A.D. 1740 (A.H. 1153).—Alí Vardí Khán defeats Sarfaráz Khán, who is slain in the battle, and usurps the throne. He requests Murshid Kulí Khán to retire from Orissa. The latter refuses. Alí Vardí Khán marches towards Orissa with 12,000 men. Murshid Kulí Khán is defeated on the north of Balasor, and embarks on board a ship for Masulipatam. Alí Vardí Khán marches to Cattack, and gives the Government of the Province to his nephew, Sayyíd Ahmad. The new Deputy becomes very unpopular. The people rise, and imprison him in his own house. One Bakhir Khán now assumed the Government of Orissa. Alí Vardí Khán defeats Bakhir Khán on the banks of the

Mahánadí, and rescues his nephew. He appoints Muhammad Másum Khán to the Deputy-Governorship of Orissa.

A.D. 1741–2 (A.H. 1154–5).—Alí Vardí Khán returns to Bengal, and encamps at Midnapur, when he hears that the Marhattás have invaded the country by way of Orissa. He marches towards Bardwán and fights several small engagements with the Marhattás. Eventually Bháskar Pandit, the Marhattá general, demands a million sterling and all the elephants (Bengal Governor's) as the price of his quitting the country; but is refused. The Marhattás devastate Bengal and seize Orissa, killing the Governor, but are finally defeated and driven out. Abdul Rasúl Khán is appointed Governor of Orissa.

A.D. 1745 (A.H. 1157).—Raghuji Bhonslá, the Marhattá, invades Bengal, reduces Orissa, and on his return to his own kingdom at Nágpur, leaves Mír Habib to defend the newly-acquired Province.

A.D. 1747 (A.H. 1160).—Mír Jáffar appointed by the Bengal Governor to expel the Marhattás and Afgháns from Cattack, but fails. Ataullá Khán supersedes Mír Jáffar, and defeats the Marhattás near Bardwán. Alí Vardí, the Bengal Governor, now takes the command himself, and defeats the Marhattás in several engagements. The Afgháns in Behar revolt, and the Marhattás join them, but are defeated.

A.D. 1750 (A.H. 1162).—Jánojí, the son of Raghuji the Marhattá, returns to his own country (Nágpur), leaving a body of Marhattás under Mír Habib for the defence of Cattack.

A.D. 1751 (A.H. 1164).—Alí Vardí Khán, the Bengal Governor, marched towards Cattack to expel the Marhattás from Orissa, but cannot bring them to a decisive engagement. He practically cedes to them the Province of Orissa, and engages to pay twelve lakhs of rupees a-year as the *Chauth* for Bengal. See my Orissa, chap. vi.

APPENDIX IX.

THE LITERATURE OF ORISSA:

BEING AN ANALYTICAL CATALOGUE OF 107 URIYA WRITERS, ALPHABETICALLY ARRANGED; WITH A BRIEF DESCRIPTION OF 47 MSS. OF UNDETERMINED AUTHORSHIP.

THE following pages are based upon manuscripts (vernacular and English), chiefly supplied by Mr. T. Ravenshaw, Commissioner of Orissa.

I. ABHIMANYU SAMANT SINHAR; lived about 100 years ago. The most celebrated and popular of his works are, (1) Bidagdha Chintámani; and (2) Príti Chintámani, the subject of both being the amours and adventures of the shepherd god Krishna and his mistress Rádhá.

II. ACHYUTANAND DAS; lived about 100 years ago; his works are Anant Goyí, or 'The Eternal Mystery,' a religious book containing an account of the penances and austerities which the ancient sages performed for the sake of their salvation; (2) Achyutánand Máliká, a prophetical work; and (3) Sapta Bhágvata, or a version of the Vaishnava Scriptures in Sanskrit, called the Bhágvata.

III. ARAT DAS; period not known; author of Jagannáth Janána, which consists of prayers to, and praises of, Jagannáth.

IV. BALBHADRA BHANJ; period not known; a Rájá of Gumsar, and supposed to be the ancestor of Upendra Bhanj, another prince of the same State, and the most eminent of the Orissa poets. His work is called Bhababatí, a romance relating the love adventures of a prince.

V. BALRAM DAS; lived 300 years ago; a Vaishnav of Purí, and author of numerous works, of which the twenty-three following are the chief: (1) Bedhá Parikrama, or 'A Walk around the Sacred Enclosures of the Purí Temple,' a poetical work describing the various minor shrines and deities connected with the temple of Jagannáth; (2) Arjuna Gíta, a religious poem; (3) Bhaba Samudra, an ethical poem;

(4) Bhágvata Gítá, a Vaishnava Scripture translated from the Sanskrit, constantly read and quoted by the Uriyás; (5) Bhakti Rasámrita Sindhu, or 'The Sea of the Nectar of Faith,' a work on devotional subjects; (6) Bhuta Keli, the sports of Krishna and Rádhá; (7) Biráta Gíta, an ethical poem; (8) Chandí Purán, an account of the destruction of the buffalo demon Mahíshsásur by Chandí, a name of the Goddess Kálí; (9) Chhatisá Gíta, a religious poem; (10) Gaja Nistárana Gíta, a tale of the Mahábhárata, regarding the rescue of an elephant from the teeth of a tortoise; (11) Ganesa Beguti, a poem on religious subjects; (12) Garura Gíta, a rather famous work on metaphysical subjects; (13) Gíta Sára, an ethical work; (14) Gupta Gíta, a poem containing metaphysical and ethical discourses between Krishna and Arjuna, the third Pándava; (15) Krishna Lilá, or the sports of Krishna; (16) Mahábhárata, an Uriyá version of the Sanskrit Epic of the same name; (17) Mrugání Stuti, a tale of the deliverance of a roe from distress by Parasuráma, and her praises to her deliverer; (18) Námáratna Gíta, a religious poem; (19) Rámáyana, an Uriyá version of the Sanskrit Epic of the same name; (20) Rasabinoda, the sports of Rádhá and Krishna; (21) Rasakeli, the same; (22) Saríra Bhugola, metaphysical and theological discourses between Krishna and Arjuna; and (23) Tulá Bhiná, the same.

VI. Barddhaman Mahapatra; lived six hundred years ago; a Bráhman of Purí, and a Sanskrit author of some note; his works are, (1) Barddhamán Káriká; and (2) Durgotsaba Chandriká, both in Sanskrit, the former on Smriti (Hindu Law), and the latter about the worship of the ten-handed goddess Durgá, another name and form of Kálí.

VII. Basudeva Misra; period unknown; a Bráhman who wrote two Sanskrit grammatical works: (1) Básu Prakriyá; and (2) Sára Manjari.

VIII. Basudeva Sarma; period not known; a Bráhman who wrote a Sanskrit work on rhetoric, called the Sáhitya Darpana Tiká Prabhá Smriti.

IX. Basudeva Tripathi; period unknown; a Bráhman who compiled a Sanskrit book on Hindu rites and ceremonies, called the Práyaschitta Bilochana.

X. Basu Rath Bajapayi; period unknown; author of a Sanskrit work on Smriti (Hindu Law) which bears his own name.

XI. Bhagaban Kabiraj; lived 600 years ago; author of a noted work in Sanskrit, written in a dramatical style, called the Gundichá Champá, describing the Bathing and the Car Festivals of Jagannáth.

XII. BHAKTA CHARAN DAS KABI; lived 150 years ago; author of Mathurá Mangal, a famous work on the sports of Krishna and Rádhá, the MS. of which was lately published in Cattack.

XIII. BHIKARI PATNAIK; period unknown; wrote a small drama, Lankádáyana Nátiká, on the conquest of Lanká (Ceylon) by Ráma Chandra.

XIV. BHIMA DAS; lived 200 years ago; a Vaishnav of Purí who wrote a book, Bhakti Ratnamálá, on religious subjects.

XV. BHIMA DHIBARA; lived 150 years ago; a highly esteemed poet of the fisherman caste. His works are, (1) Kapatpásá, a tale from the Mahábhárata, of the loss of his kingdom, at dice-playing, by Yudhisthir; and (2) Bhárat Sábitrí, a poetical version of the Bhárat.

XVI. BIDYAKAR PUROHITA; lived 200 years ago; a Bráhman who wrote a Sanskrit book, Náráyan Shataka, on Náráyan, another name of Vishnu.

XVII. BIDYAKAR BAJAPAYI; period unknown; wrote a Sanskrit work on Smriti, called the Bidyákar Paddhati.

XVIII. BIPRA KANTHA DAS; lived 250 years ago; he wrote two popular books called (1) Napai; and (2) Chhapai, containing small ballads on the early sports of Krishna.

XIX. BISWA NATH DAS KABI, *alias* PURUSHOTTAMA BISWA NATH KHUNTIA; lived 300 years ago; a writer of great celebrity, and author of the Bichitra Rámáyana, or 'The Wonderful Rámáyana,' an Uriyá version of the original Sanskrit Epic. Of all the translations of the Rámáyana in Uriyá, this is the most popular, and passages from it are still recited by dancing boys when the scenes and events of the epic are acted on the stage.

XX. BISWA NATH PATJOSI; period not known; a Bráhman who wrote a Sanskrit drama, Usha Parinaya Nátak, which gives an account of the love and marriage of Ushá, the daughter of King Bán, with Aniruddha, grandson of Krishna.

XXI. BISWA NATH NAMA PANDIT; lived 300 years ago; wrote a Sanskrit book, Smriti Sár, on Hindu Religious and Domestic Law.

XXII. BISWAMBHARA MISRA KABI; lived 200 years ago. His work is Bichitra Bhárat, or 'The Wonderful Bhárat,' a poetical translation of the Aranya and the Birát volumes of the Mahábhárat, very popular with the Uriyás.

XXIII. BRAJA NATH DAS; period not known. His works are, (1) Ambiká Bilás, or 'The Love of Ambiká,' a tale from the Mahábhárat; (2) Samara Taranga, a poem on war; and (3) Gundicha Bije, a poem on Jagannáth's journey to his country seat during the Car Festival, with his brother Balbhadra and sister Subhadrá.

XXIV. CHAKRA DATTA; a Bengali Káyasth; period unknown. He wrote a medical work which bears his own name, and is consulted by native physicians in the country south of Cattack.

XXV. CHAKRAPANI PATNAIK; lived 150 years ago; a Karan who wrote a Sanskrit work called the Gundichá Champá, describing the Bathing, the Car, and other festivals of Jagannáth.

XXVI. CHANDRA MANI MOHANTA; lived 150 years ago. His works are, (1) Sudarsan Bilás, a Sanskrit work on the amours and sports of Sudarsan; (2) Hansa Dut, a translation of the work of the same name of Rúp Goswámí, the Bengali Vaishnav; and (3) Sabda Kalpa Latá, a Sanskrit lexicography.

XXVII. CHANDRA SIKHARA RAYA GURU; period unknown; a Bráhman, and the religious preceptor of the king. He wrote Madhuraniruddha Nátak, a Sanskrit drama on the adventures of Aniruddha, Krishna's grandson. This work is much esteemed by the Uriyá Pandits.

XXVIII. DHANANJAY BHANJ; period unknown; a Gumsar Rájá who composed two books: (1) Raghu Náth Bilás; and (2) Ráma Bilás, both based upon the Rámáyana.

XXIX. DHANI DAS; lived 150 years ago; wrote a Sanskrit book on astrology called the Nakshatra Katapáyá.

XXX. DHARANI DHAR; lived about 250 years ago; translated in verse the celebrated poem, Gíta Govinda of Jayadeva Goswámí.

XXXI. DIBAKAR MISRA; lived 200 years ago; wrote the book Jagannáth Charitámrita, on Jagannáth.

XXXII. DIBYA SINH MAHAPATRA; lived 200 years ago; wrote two Sanskrit books: (1) One on Hindu Law; and (2) The other on Hindu funeral ceremonies.

XXXIII. DINBANDHU DAS; period unknown; a Bráhman, author of a work called Chhanda Cháru Prabhá, on love matters.

XXXIV. DINBANDHU RAYA; lived 250 years ago; a Rájá of one of the Tributary States who wrote a book called the Rádhá Bilás, about the amours of Rádhá.

XXXV. DINA KRISHNA DAS, also called SINDHU; lived about 300 years ago; a Karan Vaishnava, and so popular an author that he is considered to be the son of god Jagannáth. His works are written in an elegant and remarkably simple style, and his descriptions of natural scenery are often very beautiful. The following fifteen of his works still enjoy a wide popularity among high and low:—(1) Rasakallol, or 'The Waves of Sentiment,' an account of the early sports of Krishna; (2) Chakradhar Bilás, a work on the same subject; (3) Madhusudan Bilás, another work on the same subject;

(4) Mádhabakar Gíta, a medical work; (5) Arttatrán Chautisá, hymns addressed to Jagannáth; (6) Báramás Kaili, or 'The Twelve Months' Cuckoo,' a lamentation of Rámá's mother on her son's exile; (7) Jagomohana, on Jagannáth; (8) Sámudrika, a rare book on palmistry, translated from the Sanskrit; (9) Gundichá Bije, a poem describing Jagannáth's journey to his country house during the Car Festival; (10) Pratáp Sindhu, a book said to contain lectures which the sage Vasishtha delivered to King Dasaratha, Rámá's father; (11) Guna Ságara, a poem on Krishna's early life; (12) Ujwala Nílmani Káriká, a work in prose describing the amours of Krishna and Rádhá; (13) Rádhá Kanacha, a work containing certain incantations and ceremonies; (14) Dwádasa Kunja Lilá, on amorous sports of Krishna; and (15) Krishna Dás Bali, a medical work.

XXXVI. Gadahar Mahapatra Raya Guru; lived 200 years ago; the religious preceptor of the Orissa Rájá. He wrote the following works in Sanskrit: (1) Kála Sára; (2) Sráddha Sára; and (3) Achára Sára, on Hindu rites and ceremonies, etc.

XXXVII. Gadadhar Patnaik; lived 170 years ago; wrote a book on amorous subjects, called Rasa Kalpa Latá.

XXXVIII. Gopal Bhanj; lived 600 years ago; contemporary with King Lánguliyá Narsinh, who built the Black Pagoda at Kanárak, on the shore of Orissa. He is the author of the Arka Máhátmya, a Sanskrit work describing the sanctity and the building of the temple.

XXXIX. Gopendra Bhanita; lived 200 years ago; author of a rather popular book, called Madhupa Chautisá, on the sports of Krishna among the shepherd-maids of Brindában.

XL. Gopi Nath Kabi Bhushan; lived 200 years ago; wrote (1) Kabi Chintámani, a treatise on the rules of versification; and (2) Ráma Chandra Bihárá, an account of the adventures of Ráma.

XLI. Gopi Nath Rath; lived 150 years ago; a Bráhman, and a Sanskrit commentator on the poets. His works are, (1) Hansadut Tiká; and (2) Nishádha Tiká, Sanskrit commentaries on Hansadut and Nishádha.

XLII. Govinda Das; lived about 250 years ago; a native of the Tributary State of Tigariá, who wrote a Sanskrit grammar called the Prakriyá Sára Byákaran.

XLIII. Govinda Das; lived 260 years ago; a Bráhman Vaishnav who wrote a book called Charana Sudhánidhi, a panegyric on Vishnu in two of his incarnations.

XLIV. Govinda Santra; lived 300 years ago; a Bráhman, author of (1) Suri Sarbaswa; and (2) Bíra Sarbaswa, both in Sanskrit, two treatises of laws, morals, etc.

XLV. Hara Das; lived about 100 years ago; wrote a prophetical work called the Hára Dás Máliká.

XLVI. Hari Chandan Deva; lived 300 years ago; a Rájá of one of the Tributary States; author of a work called Lilábatí, a poem containing an account of the amours of Lilábatí, daughter of the Chola Rájá, and Chandra Bhánu, prince of the Anga Des.

XLVII. Haladhar Das; lived about 500 years ago; wrote the following works: (1) Ardhátmya Rámáyana, another Uriyá translation of the Rámáyana; and (2) Haladhar Káriká, a work on Hindu Religious and Social Law.

XLVIII. Hanuman Misra; period unknown; wrote commentations on the celebrated Sanskrit drama, Mahánátaka.

XLIX. Harihar Kabi; lived about 300 years ago; author of Suchitra Rámáyana, a translation of the Rámáyana in verse, which almost equals the Bichitra Rámáyana in elegance of style.

L. Harihar Acharjya; lived about 300 years ago; author of a Sanskrit work on Hindu Religious and Social Law, called the Samaya Pradip.

LI. Hari Krishna Mahapatra; period unknown; wrote Rukminí Bilás, an account of the amusements of Krishna's wife, Rukminí.

LII. Hari Naik; lived 650 years ago; wrote Gíta Prakás, a Sanskrit work containing hymns to gods.

LIII. Jadumani Bhanj; lived 250 years ago; a Rájá of Gumsar; author of Rukminí Bilás, an account of the sports of Krishna and his wife Rukminí.

LIV. Jagannath Das; lived 350 years ago; wrote the following works: (1) Páshanda Dalana, or 'The Destruction of the Sinners,' a religious work; (2) Bhágvat, a translation of the Vaishnava Scriptures Bhágvat, which is very often read and quoted by the Uriyás; (3) Manasikshá, a series of discourses between the sages Suka and Sanaka about the youthful sports of Krishna; and (4) Jagannáth Káriká, a Sanskrit work on Smriti, or Hindu Religious and Domestic Law. His works are esteemed by the people.

LV. Jalantara Kabi Surjya Rava Guru; lived about 150 years ago; a native of Párikud; author of the following works: (1) Chaupadi, a collection of verses; (2) Kesari Chandra Champá, on the loves of Rádhá and Krishna; (3) Ananda Dámodar Champá, on the same subject; and (4) Hásyárnaba, comic verses. The first three are written partly in Uriyá and partly in Sanskrit.

LVI. Kabi Chandra Raghu Nath Pariksha; lived 600 years ago; wrote the Sanskrit drama of Gopí Náth Ballabh Nátaka, on the sports and amusements of Krishna among the shepherdesses of Brin-

dában. This writer was a contemporary of King Lánguliyá Narsinh Deva.

LVII. KABINDRA NARAYANA SARMA; lived 1200 years ago; a contemporary of King Lalát Indra Kesari; wrote the two Sanskrit works: (1) Ekámbra Chandriká; and (2) Birajá Máhátmya, on the sanctity of the sacred places of Bhuvaneswar and Jájpur. Both enjoy a considerable reputation.

LVIII. KALI DAS CHOYINI NAMA PANDIT; lived 500 years ago; author of Suddhi Chandriká, a Sanskrit work on Hindu Law.

LIX. KARNAMGIRI; lived 100 years ago; an ascetic who wrote the Bhakti Rasámrita, a book on devotional subjects, and a work of some note among the people.

LX. KESAB DAS KABI; lived 200 years ago; author of Suchitra Bhárata, an abstract of the Mahábhárata in Uriyá.

LXI. KRISHNA DAS; period not known; wrote the following books: (1) Pinsa Ratnákar, on devotional subjects; (2) Gít Govinda, an Uriyá version of Jayadeva's Gít Govinda; and (3) Bhágvat, a translation of the original work in Sanskrit.

LXII. KRISHNA MISRA; lived 250 years ago; his works are, (1) Prabodha Chandrodaya Nátiká, a Sanskrit drama; (2) Sáhitya Ratnákar Alankár Tiká, a commentary on Sanskrit rhetoric; and (3) Krishna Misra Prakriyá, a Sanskrit grammar.

LXIII. KRISHNA SINHA; lived 200 years ago; translated the Bhárata, Rámáyana, and Bhágvat from the Sanskrit, and paraphrased the Haribansa, a noted work on the family of Krishna.

LXIV. KRUPA SINDHU DAS; lived 200 years ago; wrote the following books: Srí Jagannáth Stuti, prayers to Jagannáth; and (2) Braja Bihára, sports of Krishna among the shepherd-maids of Brindában.

LXV. KRUPA SINDHU PATNAIK; lived 300 years ago; his works are, Dasa Bali Braja Bihára, sports of Krishna at Brindában; (2) Kamalá Kánt Chautisá, on Krishna's adventures; and (3) a poem on the same subject called the Sajaní Chautisá.

LXVI. KUNJA BEHARI PATNAIK; lived 150 years ago; author of Kunja Behárí, a poetical work about Krishna.

LXVII. LAKSHMIDHAR DAS; lived 200 years ago; wrote the work, Angadapári, an account of Rámá's embassy to Rávana, King of Ceylon.

LXVIII. LAKSHMIDHAR MISRA; lived 200 years ago; a native of Bhuvaneswar, and author of Saivakalpadruma, a Sanskrit work on rituals to be observed in the worship of Siva.

LXIX. LOK NATH BIDYADHAR; lived 200 years ago; wrote the following works: (1) Chitrakalá, on love adventures; (2) Sarbánga

Sundarí, a poetical romance; (3) Chittotpala; (4) Parimalá; and (5) Rasakalá, all on love matters.

LXX. Lok Nath Das; lived 100 years ago; author of (1) Karikábali, and (2) Karmakánda, both Sanskrit works on rites and ceremonies.

LXXI. Lok Nath Naik; lived 150 years ago; wrote Khari Lilábatí, a mathematical work in Uriyá verse.

LXXII. Madhava Kar; lived 400 years ago; wrote Mádhava Kar, a Sanskrit work on medicine. This work is very much esteemed, and is consulted by physicians in the country north of Cattack.

LXXIII. Maguni Patnaik; lived 150 years ago; his work is Rámachandra Bihárá, on the adventures of Ráma.

LXXIV. Mahadeva Das; lived 200 years ago; writer of (1) Padma Purán; (2) Márkanda Purán; (3) Mágh Máhátmya; (4) Baisákh Máhátmya; (5) Kártik Máhátmya; and (6) Rámáyana, all translations from the Sanskrit works of the same name.

LXXV. Manikya Deva Pandit; period unknown; wrote Suddhi Guchchha, a Sanskrit work on rites of purification.

LXXVI. Markanda Das; lived 600 years ago; his works are, (1) Kesab Kaili, complaints of Jasodá, Krishna's mother; and (2) Gyán Udaya Kaili, a theological work.

LXXVII. Narayan Acharjya; lived 300 years ago; author of Sulakshana, a poem on love affairs.

LXXVIII. Narayan Purohita; lived 700 years ago; author of Brata Ratnákar, a treatise on versification, written in a kind of Uriyá verse called the Chhanda.

LXXIX. Nidhi Rath; lived 300 years ago; translated into Uriyá the Ritu Sanhár of Kálidás.

LXXX. Nilambar Bhanj; lived 150 years ago; a Rájá of Haldía, and author of (1) Krishna Lilámrita, on the sports of Krishna; and (2) Pancha Sáyaka, on love matters.

LXXXI. Nilambar Das; lived 400 years ago; his work is Jaimuni Bhárata, an Uriyá version of the Mahábhárata.

LXXXII. Narsinh Bajpayi; lived 300 years ago; author of (1) Achár Pradip; (2) Vyavasthá Pradip; (3) Práyaschitta Pradip; (4) Bájapáyí Smriti; and (5) Dána Ságara, all in Sanskrit, on Hindu ceremonies, rites, the virtue of bestowing alms and gifts, etc.

LXXXIII. Narsinh Patnaik; lived 90 years ago; wrote a Sanskrit lexicography in verse, called the Sabda Málá.

LXXXIV. Padma Nabh Deva; lived 400 years ago; a Rájá of one of the Tributary States who wrote a romance called the Prabhábatí.

LXXXV. PADMA NABH PARIKSHA; lived 150 years ago; author of Gíta Tála Prabandha, a work giving instructions on music.

LXXXVI. PITAMBARA RAJENDRA; lived 200 years ago; a Rájá of one of the Tributary States; wrote Rámalilá, sports of Rámachandra.

LXXXVII. PINDIKI SRI CHANDANA; period unknown; his work is Mukunda Málá Gíta, a book of hymns and invocations.

LXXXVIII. PITAMBARA MISRA KABI CHANDANA; lived 150 years ago; his works are the following: (1) Gundichá Champá, a Sanskrit work on Jagannáth's journey to his country house during the Car Festival; (2) Náráyana Shataka Tiká, a commentary on the Sanskrit work Náráyana Shataka; (3) Jatakálankár Tiká, a commentary on the Sanskrit astrological work Jatakálankár; (4) Ráma Birudábali, a Sanskrit work on Ráma Chandra's adventures; and (5) Pitambarí Chandí, a commentary on the Chandí Bhágvat in Sanskrit.

LXXXIX. PITAMBARA DEVA; lived 300 years ago; a Rájá who wrote a work on devotional subjects, called the Akhila Rasa Chintámani.

XC. PURUSHOTTAMA DAS; lived 200 years ago; translated Gundichá Bije, or the journey of Jagannáth to his country seat, from the Sanskrit work of the same name.

XCI. PURUSHOTTAMA MISRA; lived 500 years ago; a Bráhman, and the author of the following works: (1) Sangíta Náráyana, Sanskrit hymns, music, etc.; (2) Kshetra Máhátmya, a celebrated work containing an account of Purí and the gods in it; and (3) Níládri Máhátmya, a Sanskrit work on Jagannáth, his temple, etc.

XCII. PURUSHOTTAMA PARHI; lived 300 years ago; wrote (1) Anarghya Rághava Tiká, a commentary on the Sanskrit drama Anarghya Rághaba; (2) Samasta Kabimánankar Tiká, Sanskrit commentaries on all the poets; and (3) Amarkosh Tiká, a Sanskrit commentary on Amarkosh, the Sanskrit dictionary.

XCIII. RAGHU NATH DAS; lived 150 years ago; a celebrated Sanskrit scholar, author, and commentator. His works are: (1) Baidya Kalpa Latiká, a Sanskrit work on physics; (2) Práyaschitta Tarangini, a Sanskrit work regarding purification from pollution; (3) Amarkosh Tiká, a commentary on the Sanskrit dictionary Amarkosh; (4) Raghu Náth Dás Prakriyá, a Sanskrit grammar; (5) Barddhamán Byákaran Tiká, a Sanskrit commentary on the Barddhamán Byákaran, a grammar; (6) Samasta Kábimánankar Tiká, a commentary on all the poets; (7) Sanskrita Manjari, a Sanskrit work on rules of grammar; (8) Raghuvansa Tiká, a Sanskrit commentary on Kali Dás's Raghuvansa, a work on the ancestors of Ráma; and (9) Utpáta Taranginí, a Sanskrit poem.

XCIV. RAMA CHANDRA BAJAPAYI; lived 400 years ago; a Purí

Bráhman who wrote a Sanskrit work on Hindu Social and Religious Law, called the Karmánga Paddhati.

XCV. RAMA CHANDRA DAS; lived 200 years ago; his works are, (1) Balbhadra Bali, concerning Krishna; and (2) Chaupadis, a small book of poems.

XCVI. RAMA CHANDRA PATNAIK; lived 500 years ago; author of (1) Hárábatí, a romance; (2) Saiva Chintámani, in Sanskrit, regarding the worship of Siva.

XCVII. RAMA KRISHNA RATHA; period unknown; wrote a Sanskrit commentary on rhetoric called the Sáhitya Ratnákar Alankár.

XCVIII. SADAJAYA; period unknown; author of (1) Saralá Stuti, the prayers to a village goddess, Saralá; (2) Mangalá Stuti, eulogies on a village goddess, Mangalá; and (3) eulogies on the goddess Bimalá of Purí.

XCIX. SADANANDA KABI SURYYA BRAHMA; lived 167 years ago; a popular writer on ethics, devotional subjects, etc.; his works are, (1) Nistára Nílmani; (2) Námáchintámani; (3) Prema Panchámrita; (4) Jugal Rasámrita Lahari; (5) Prema Tarangini; (6) Prema Lahari; (7) Prema Bhaunri; and (8) Jugal Rasámrita Chaunri; all devotional or theological works.

C. SAMBHU KAR BAJAPAYI; lived 150 years ago; a Bráhman who wrote a Sanskrit book on Hindu Social and Religious Law called after his name.

CI. SARALA DAS KABI; lived 300 years ago; translated Mahábhárata into Uriyá.

CII. SISU DAMA DAS; period unknown; author of Dáru Brahma Gíta, an interesting work on the discovery of the Dásu Brahma, and the consecration of the Purí temple to Jagannáth.

CIII. SISU SANKARA DAS; lived 250 years ago; translated the Sanskrit drama, Ushápariṇaya Nátaka, into Uriyá.

CIV. SRIDHAR DAS; lived about 300 years ago; a native of Banki, one of the Tributary States, who wrote a work called the Kánchan Latá, the early sports of Krishna.

CV. SRIPATI DAS; lived 700 years ago; a celebrated Bráhman astrologer, and author of the famous work on astrology which bears his own name, Srípati, from which the yearly Uriyá almanacks are drawn up.

CVI. TRIPURARI DAS; lived 200 years ago; produced, (1) Katapáya, a Sanskrit astrological work; (2) Kerala Gíta, an astrological work; (3) Ráma Krishna Keli Kallol, a work on Ráma and Krishna; and (4) Rádhá Krishna Keli Kallol, a work on Krishna and Rádhá.

CVII. UPENDRA BHANJ; a Rájá of Gumsar, and the most emi-

nent of all the Uriyá poets; lived 300 years ago. His works are, (1) Abaná Rasa Taranga, a work on Ráma Chandrá's Adventures; (2) Bachantisa, songs on Krishna; (3) Baidehi Bilás, on the adventures of Ráma; (4) Bhababatí, a romance; (5) Braja Lilá, sports of Krishna; (6) Chandra Kalá, a romance; (7) Chandra Rekhá, a romance; (8) Chaupadi Bhushana, a small love piece; (9) Chaupadi Chandra, a small love piece; (10) Chhanda Bhushana, a treatise on versification; (11) Chitra Lekhá, a romance; (12) Chitra Kábya Bandhadáya, a treatise on versification; (13) Duhá, ethical tales; (14) Gahá, ethical tales; (15) Gítábidhana, a lexicography in verse, lately published by the Cattack Mission Press; (16) Hemamanjuri, a romance; (17) Ichchhábatí, the adventures of Cháta and Princess Ichchhábatí; (18) Jamaka Rájá Chautisá, songs on Krishna; (19) Kalábatí, the love adventures of Bhárata and Kalábatí; (20) Kalákantaka, enigmas on Krishna's sports; (21) Kámakalá, a romance; (22) Koti Brahmánda Sundarí, an interesting tale illustrative of woman's constancy and fidelity; (23) Kunja Behára, sports of Krishna; (24) Lábanyabatí, an account of the loves of Prince Chandrabhánu and Princess Lábanyabatí, a popular work; (25) Muktábatí, adventures of Muktábatí; (26) Manoramá, a romance; (27) Prema Latá, a romance; (28) Prema Sudhánidhí, an account of the Princess Prema Sudhánidhí, the daughter of the King of Kerala; (29) Puríshottama Máhátmya, on the sanctity of Purí, its temples, etc.; (30) Ráhás Lilá, sports of Krishna; (31) Rasa Lekhá, adventures of Rasa Lekhá, a princess; (32) Rasa Panchaka, songs on the five classes of amorous sentiments; (33) Rasiká Hárábatí, a work on amorous subjects; (34) Ráma Lilámrita, adventures of Ráma Chandra; (35) Rasamanjuri, a treatise on rules of versification; (36) Shararitu, a version of Kálidás's Ritu Sanhár; (37) Sangíta Kaumadí, a treatise on music; (38) Sasi Rekhá, a romance; (39) Sobhábatí, adventures of Princess Sobhábatí; (40) Subarna Rekhá, a romance; (41) Subhadrá Parinaya, an account of the marriage of Arjun and Subhadrá, Jagannáth's sister; and (42) Trailokya Mohiní, a romance.

The Authors of the following Works are doubtful:—(1) Artha Kaili, tales about Krishna; (2) Aswattha Kshetra Máhátmya, on the sanctity of Kujang; (3) Basanta Kaili, tales about Krishna; (4) Bhháratámrita, a Sanskrit poem about Bhárata; (5) Bhanja Mahodaya Nátiká, a small Sanskrit drama; (6) Bhati Rasámrita Sindhu, a work on devotional subjects; (7) Bidagdha Mádhava, on Rádhá and Krishna; (8) Brahma Gyána, a metaphysical work; (9) Chaitanya Charitámrita, life of Chaitanya, the Vishnuvite reformer of Naddea, translated from the Bengali; (10) Deolá Tolá, an account of the

building of the great temple of Jagannáth; (11) Dhwani Manjari, a Sanskrit lexicography; (12) Dwirepha Kos, the same; (13) Ekámbra Kshetra, on the sanctity of Bhuvaneswar, its temples, etc.; (14) Ekámbra Purán, a local Purán on the same; (15) Ekákshara Kos, a Sanskrit lexicography; (16) Gyána Chandra Churámani, a work on metaphysics; (17) Itihás Lekhana, on the same; (18) Jaleswara Paddhati, a Sanskrit work on Smriti; (19) Kánchikáveri, an interesting tale about the conquest of Conjeveram, and the adventures of Princess Padmávatí; (20) Kapila Sanhitá, a Sanskrit work on the places of pilgrimage in Orissa, Purí, Kanárak, Bhuvaneswar, and Jájpur; (21) Kosamanjari, a Sanskrit lexicography; (22) Kshetra Máhátmya, a Sanskrit work on the sacred places of Orissa; (23) Mohanta Nirnaya Rasa, a work on various classes of ascetics; (24) Mantrárnaba, a Sanskrit work on the Tantras, the scriptures of the worshippers of the Wife of Siva; (25) Mahi Mandala, a work on creation; (26) Mukunda Málá, partly in Uriyá and partly in Sanskrit, about the adventures of Ráma; (27) Naba Brindában Bihár, on Krishna's sports with the maids of Brindában; (28) Nánártha Kosh, a Sanskrit dictionary; (29) Nidána Tiká, a Sanskrit commentary on Nidán, a book of medicine; (30) Páriját Haran, a small Sanskrit drama on Krishna's forcibly taking away the Páriját flower from the garden of the god-king of Heaven; (31) Práchi Máhátmya, in Sanskrit, on the sanctity of the small river Práchi; (32) Premloka Nátaka, a Sanskrit drama; (33) Purúshottama Kshetra Máhátmya, a Sanskrit work on Purí; (34) Rádhámrita Gíta, on Rádhá and Krishna; (35) Ráma Sítá Ballabh Nátak, a Sanskrit drama on Ráma and his wife Sítá; (36) Ráma Lilá Nátak, another Sanskrit drama of the same sort; (37) Sabda Kosh Tolá, a Sanskrit grammar; (38) Sampradáya Siddha, a Sanskrit work on Hindu Law; (39) Sahendayánanda, a poem in Sanskrit; (40) Siva Purán, a translation of the original Sanskrit work; (41) Siva Lilámrita, concerning the sports of Siva; (42) Slokábali, a Sanskrit work; (43) Surjya Kshetra Máhátmya, a Sanskrit work on the sanctity of the temple of Kanárak; (44) Tantra Sára, a Sanskrit work on the Tantras; (45) Tattwarnaba, a Sanskrit work on medicine; (46) Tulasi Kshetra Máhátmya, a Sanskrit work on the sanctity of Kendrápárá; and (47) Utkal Máhátmya, in Sanskrit, an account of the holy places in Orissa.

In the names of books and authors I have sometimes transliterated from the Sanskrit orthography, sometimes from the Uriya form, the latter being generally followed when the name is a very common or popular one among the inhabitants of Orissa. Many of them, although not professedly translations, are paraphrases or compilations rather than original works.

INDEX.

N.B.—The following Index only applies to the text of 'Orissa' (both volumes), as the Appendices are themselves so condensed, and embrace such a variety of subjects, that any attempt to give an alphabetical *précis* of them would unduly swell this Index.

AFGHANS invade Bengal, ii. 3; conquer Orissa, 7–14; their struggle with the Mughuls in Orissa, 14–29; extinction of Orissa Afghans, 24–26. See *Musalmáns;* also App. VII.

AGRICULTURE. See *Husbandmen, Tillage.*

ANANG BHIM DEO, builder of Jagannáth temple, i. 100.

ARCHITECTURE AND SCULPTURE, Yavana, i. 230–232; sculptures at Jájpur, 265–272; the Hindu Arch, 276, 277, 297, 298; temple of Sun, 281 *et seq.;* described, 288–298; Sun-pillars, 290; connection of Buddhist architecture with Sivaite, 234; with Vishnuvite, 290.

ARYAN CASTES AND MIGRATIONS, i. 36, 37, 94, 174, 177, 201, 205; migrations of Siva worshippers into Orissa, and their settlement, 238–242 (see *Bráhmans*); the Aryan colonization of India, Northern, Central, and Southern, 242–265, ii. 206. See App. 6–11, 37–41, 123–126.

ASOKA, i. 192, 195. See *Buddhism.*

ASTRONOMY, Yavana, i. 225, 226.

AVATARS. See *Vishnu.*

BAITARANI RIVER, i. 82, 270, 272, ii. 177. See App. 35, 74, 97, 98, 109.

BANDITTI, i. 28, ii. 231.

BANPUR, i. 27, 28; App. I. 29.

BALASOR DISTRICT, statistical account of, App. II.

BALASOR TOWN, ii. 38, 39, 42, 43, 45, 46, 47; App. II. 41–43.

BARDWAN sacked by Orissa king, i. 280; captured by Orissa rebels, ii. 26; heroic conduct of the ladies of the palace, 26, 27.

BASU the Fowler, i. 89–97.

BHARGAVI RIVER, i. 48, 56; App. I. 3.

BHUVANESWAR, i. 96, 233–236.

BRAHMAN TENURE-HOLDERS, i. 33, 54, ii. 254.

BRAHMA, i. 92; images at Kanárak, 295.

BRAHMANS, i. 33, 37; migrations and settlements of Sivaite Bráhmans in Orissa, 238–242; potato-growing Bráhmans of Orissa, 239; Bráhman colonization of India, 242; various sorts of Bráhmans, 245; shepherd Bráhmans of Himálayas, 244–246; ploughing Bráhmans of Doab, 246; manufactured Bráhmans of Oudh, 247; ploughing Bráhmans of Benares, 248; various Bráhmans of Bengal, 249, 250; peasant and jungle Bráhmans of Central India, 251, 252; aboriginal and fisher Bráhmans of Southern India, 253–257; blacksmith, etc., Bráhmans of Madura and Ceylon, 258, 259; the Bráhmans of the Veda and Epics, 260; analysis of the Bráhman caste; earlier and later migrations, 261; differences in race, manufactured Bráhmans, 263; the Bráhmans a composite caste, 264; the Bráhman metropolis of Orissa, Jájpur and its sculptures, 265–272; Bráhman villages at Jájpur, 272; Bráhman colonization only partial, ii. 206; Bráhman villages, 254, 255. See App. I. 7, 8, II. 37, 38, IV. 123, 124.

BRAHMANI RIVER, ii. 66, 177; App. III. 73, IV. 98, 106, 109.

BUDDHISM, connection with Jagannáth, i. 132; early Buddhist migrations, 177; Buddhist cave-dwellings and rock-inscriptions in Orissa, 178–187; at Udayágiri and Khandgiri, 181; a sculptured rock monastery, 183–189; political history of Buddhism, 190–198; arrival of sacred Tooth in Orissa, 190;

its legend, 191, 201; Asoka's Edicts, 192-195; further characteristics of these Edicts, 202-205; connection of Yavanas with spread of Buddhism, 227-229; struggle of Buddhism with Siva-worship in Orissa, 233; downfall of Buddhism in Bengal, 261; Buddhism in Orissa, 650 A.D., 273; connection of Buddhist with Sivaite architecture, 234; with Vishnuvite, 290; Buddhism, Sun-worship, and Vishnuvism, 299, 300; Buddhism and Jagannáth, 304; Buddhism at Tamluk, 309, 310.

CANALS in Orissa described, ii. 189-194; their cost, 190, 195; how to pay for them, 196-199; App. IV. 109-117.
CAR FESTIVAL in June or July, i. 131; connection with Buddhistic procession, 132; preparations for, 132; description of, 133; self-immolation not practised, 134, 304-308, 321; in thirteenth century, 296. See *Jagannáth*.
CASTE, influence of, ii. 108, 109, 140, 141; broken up by State education, 146, 147. See *Aryan Castes* and *Low Castes; Husbandmen (privileged)*.
CATTACK CITY, i. 49, 161; founded 953 A.D., 275, 308; captured by English, ii. 57, 58, 60; App. IV. 127, 128.
CATTACK DISTRICT, statistical account of, App. IV.
CESSES, RURAL, in Párikud, i. 35, 39, 56, ii. 233, 235.
CHAITANYA, i. 87; his life and work, 106-110.
CHAUBISKUD described, i. 50, 59, 66.
CHIGNONS, *circ.* 200 B.C., i. 186; *circ.* 700 A.D., 235, 236; 268.
CHILKA LAKE, south end, i. 18, 19, 20-29; Parikud shores of, 30-43; northern end, 44-72; schemes for deepening and utilising the Chilká, 73-80; statistics of traffic on Chilká, 77.
CHINESE PILGRIMS to India, i. 131, 143, 273, 309, 310.
CHOLERA takes its rise in the overcrowded pilgrim houses of Purí, and breaks out along the line of the pilgrim march, i. 148-167. See App. I. 25, II. 66, IV. 157.
CITY LIFE, absence of, in tributary states, ii. 102, 103; town population stationary in Orissa, 129, 130, 131. See App. i. 11, ii. 41, 42, 43, iv. 127, 128.
COMPETITION, influence of, on rent, i. 33, 55-59; ii. 212, 213, 267, 268.
CRIMINAL CLASSES in tributary states, ii. 108, 109; fewness of, in Orissa, 135, 136; App. I. 21, II. 58, IV. 147.
CULTIVATORS. See *Husbandmen*.
CURRENCY, gold, silver, and cowrie, i. 317, 326, 329; among the Kandhs, ii. 69; in tributary states of Orissa, 102; in Khúrdhá, 124; cowrie currency, 168, 169.
CUSTOM, influence of, on rent, i. 33, 55-59.

DALTALA cutting described, i. 66, 69-76.
DANISH SETTLEMENT at Balasor, ii. 46.
DAYA RIVER, i. 48, 70, 191; App. I. 2, 3.
DELTA, reclamation schemes, i. 47.
DELTAIC RIVERS, characteristics of, i. 48, 49, ii. 178-180; App. IV. 97, 98, 99, 117.
DENKHANAL STATE and its Maharaja described, ii. 104-111; App. IV. 84, 85.
DEPOPULATION, i. 30, 38; by floods, 64-68, 272, ii. 34, 35, 52, 55, 61, 127, 180, 231, 232; App. III. 76.
DESERTION OF LANDS, i. 64, ii. 34, 35, 52, 231, 233, 244, 251, 253, 254.
DOMARKHAND, i. 66; App. I. 22, 23.
DROUGHTS, i. 64; drying up of the rivers in summer, ii. 179; cost of droughts to Government, 184-187; schemes for averting droughts, 189-192; App. I. 19, II. 53-56, IV. 115, 116.
DUTCH SETTLEMENTS in Bengal, ii. 37; at Balasor, 46.

EDUCATION. See *State Education*.
EMBANKMENTS against rivers, i. 49, 65; their cost to the State and their inadequacy, ii. 181-184; schemes for their improvement, 188; App. I. 2, 3, II. 36, 52, 53, III. 75, IV. 117, 118, 119.
ENGLISH invasion of Orissa, i. 30; as merchants in Orissa, ii. 36-54; at Patna, 37; at Pipplí and Balasor, 38, 39; at Hugli, 39, 40; in Orissa, 40, 41; the era of armed commerce in Orissa, 41-55; in Ganjám, 45-53; as governors in Orissa, 55-173; conquest and annexation of Orissa, 54-59, 164.
EXPENDITURE. See *Revenues and Expenditure*.

FALSE POINT, ii. 193, 194; App. IV. 101-106.
FAMILY, the simplest unit of rural society among the Kandhs, ii. 72-76, 203-206, 208, 209.
FAMINE of 1866, i. 38, 40, ii. 34, 35; of 1770, 184; of 1866, 185, 186, 194; efforts to prevent famine, 189-198; App. II. 55; IV. 144. See *Droughts, Floods*.
FEUDAL organization and peasant militia of Orissa, ii. 4, 6, 13; in Kandh country, 71, 72; in Khurdha, *passim*,

124; feudal aristocracy under Hindu dynasties, 216–219, 268; its disintegration under our system, 269, 270.
FISHING COMMUNITIES AND CASTES, i. 31, 32, 45, ii. 233, 234; App. I. 4.
FISH-CURING rendered impossible by our Salt Laws, ii. 159, 160, 161.
FISCAL DIVISIONS (*Parganns*), i. 50; machinery for administering the fiscal divisions under Hindus, ii. 215–219; the headman, accountant, and chief swordsman of fiscal divisions develope into land-holders under the Musalmans, 221–224. For lists of Fiscal Divisions see App. I. 22, 23, II. 58–64, III. 135, 136, 137, 147–156.
FLOODS, i. 30, 35, 49–52, 63, 64; cost of, 64, 65–69; floods of 1866 in Párikud, 35; in Purí district, 67–69, ii. 174–179; general statistics of the flood of 1866, 180; cost of floods to Government, 181, 184; schemes for their control, 188; App. I. 2, 3, 4, II. 51–56, IV. 99, 108, 109, 117–120.
FORTS, on Chilká, i. 28; Párikud, 36; cover the country, ii. 34, 50, 51.
FRENCH SETTLEMENT at Balasor, ii. 47.

GANGETIC or VISHNUVITE DYNASTY (*Ganga-Vansa*), its rise, 1132 A.D., i. 278–281; its public works, 281–300; statistics of extent and revenue of Orissa under the dynasty, 317–319; its expeditions southward, 319–321; culmination of its fortunes, 322; its end, 322, 323.
GANJAM CITY, i. 17; district, 18; our factories there, ii. 49; molested by Marhattás, 50–52; curious judicial proceedings, 53.
GARUR, or sacred vulture of Vishnu, at Jájpur, i. 267.
GOLD, value of, 12th to 19th century in India, i. 316, 317.
GOPALPUR port, i. 17.
GOVERNMENT SHARE OF RENT, under native rajah in Párikud, i. 34, 35; under English rule, 53, 61, 62; share in the produce of the land under British rule, ii. 166, 167.
GRAIN VALUATION of Land Tax recommended, ii. 172.
GREEKS (Asiatic or Ionian) identified with Yavanas, i. 209–211; their progress through India, 212–224; their influence on Indian science, art, and religion, 225–232.
GUMSAR RAJA, ii. 70, 86.

HEADMAN. See *Village Headman* and *Fiscal Division*.
HERALDIC DEVICES in ancient Orissa, i. 294, 295, 309; App. III. 82, 84, 86, 87, 88, 89, 90, 91.
HIRED LABOURERS, i. 37, ii. 248. See *Low Castes*, *Non-Aryan Castes*, and App.
HOLY FOOD (Mahápraśád) of Jagannáth, i. 86.
HOMESTEAD RENT, i. 35, 39, ii. 242, 245.
HUGLI TOWN, ii. 39.
HUMAN SACRIFICES among the Kandhs, ii. 86, 95–98; suppressed, 99, 100. See *Self-immolation*.
HUSBANDMEN, i. 32, 37, 62; desert their lands, ii. 34, 35, 61; for nomadic husbandmen, see *Tillage*; husbandmen protected under our system, 266, 267; the husbandmen of Khurdhá and sale of tenant right, 271, 272, 276; App. I. 13, 14, II. 43, 46, 47, 48, III. 79, IV. 128, 129, 130, 138.
HUSBANDMEN, *privileged classes of*, i. 33, 34, 37, 54, ii. 255, 256.
HUSBANDMEN, *resident classes of* (*Tháni*), i. 54–58, ii. 232, 233; their status and privileges, 241–244; also App.
HUSBANDMEN, *non-resident classes of* (*Páhi*) i. 54–58, ii. 232, 233, 241; their status and privileges, 245, 246; also App.

INCOMES, smallness of, i. 40; App. I. 14.
INCOME TAX, its unpopularity and unproductiveness in Orissa, ii. 151; how it could be got rid of, 163, 172.
INDRADYUMNA, Vishnuvite legend of, i. 89–97.
IONIANS. See *Yavanas*.
IRON much used in Orissa architecture, i. 297; App. III. 75.

JAGANNATH, i. 29, 32; his holy abode at Purí, 83, 84; his ancient history and flight, 85; his catholicity, 86, 87, 88; legend of origin, 89–93; analysis of legend, 94–97; temple built, 1198 A.D., 100; cost of, 101, 102; composite nature of Jagannáth, 113; mediæval legends, 114; his supremacy among the common people, 115; pilgrim tax under Muhammadans, 115; under Marhattás, 116, 123; under the English, 123, 124, 125; revenues of Jagannáth, 116, 125, 127; monastic endowments, 116–121; Jagannáth under British rule, 122–125; number of pilgrims, 126; their oblations, 127; priests and officers of Jagannáth, 128; description of temple and images, 128, 129; service of temple, 129, 130; its cost, 130; festivals, 130, 131 (see *Car-festival*); indecencies in his worship,

131, 135; the low castes excluded from his temple, 135, 136; his pilgrim-hunters, 140; his garden-house, 143; village gods, 95, 143; monoply of the Jagannáth cooks in feeding the pilgrims, 146; the temple archives, 128; described in detail, 198–202; Jagannáth temple an asylum for King of Bengal, 299; his connection with Buddhism, Vishnuvism, and Sun-worship, 288–300; he is left suprême, 300; his great religious syncretism, 301, 302; his higher aspects, 302-304; Buddhistic ceremonies at Jagannáth, historical facts about self-immolation at Jagannáth, 304-308; hereditary sweeper, 321, ii. 3; his priests place their temple under English protection, 56.

JAIL, description of, in a Native State, ii. 108, 109; jail statistics in Orissa, 135, 136; App. I. 21, II. 58, IV. 147.
JAINS, i. 181, 230, 302.
JAJPUR, i. 82, 239–241; its sculptures, etc., 265–272; App. II. 38, IV. 127, 146.
JAYADEVA and Jagannáth, i. 114.

KABIR, his life and work, i. 103–106, 114.
KALI or PARVATI (see also *Siva*), i. 270.
KALINGA, ancient Kingdom of, i. 172, 190, 197.
KANDHS, i. 28, 175; their habitat, ii. 67, 69, 70; inferior races mixed among them, 68, 69; their present settlements, 70; they come under our rule, 70, 71; different aspects in which they present themselves, 71; Kandh feudalism, 71, 72; Kandh social organization, 72, 73, 74; Kandh public and private law, 75, 76; origin and transfer of land-rights, 77; judicial procedure, ordeals, 78; Kandh law of inheritance, Salic law, 79; their independence, fidelity, and valour, 80, 86; Kandh weddings and births, 81, 82; high status of women, 83; Kandh funeral rites, 84; their hospitality, 85; the Kandh village described, 87; its servile castes, 87, 88; the Kandh husbandman, 89; a Kandh listed combat, 90; their drunkenness, 91; Kandh deities and religion, 92–94; Kandh priesthood, 95; human sacrifice, 95–98; we form the Kandhs into a nation, 99, 100; Kandh land rights and village system, 203–208; compared with the Hindu system, 208–212; pressure of population and of rents in Kandh country compared with other parts of Orissa, 211–214; App. III. 76, 77, 82, 83, 84.
KESARI DYNASTY. See *Lion Line*.
KEUNJHAR STATE, ii. 112, 113–119; a highland law-suit, 115; a highland rising, 117; App. IV. 86.
KHANDGIRI, i. 181.
KHURDHA MAHARAJAH, sweeper to Jagannáth, i. 115, 320, 321, 322. See *Khurdhá Subdivision*.
KHURDHA SUB-DIVISION, i. 178, 181; rebellion of, in 1818, ii. 123–125; the present condition of Khurdhá Mahárájas, 125; their local era and prophecies, 126, 127; their position under the Mughuls and Marhattas, 222; land-system, 268–274. App. I. 27, 28, 29.
KOLAIR LAKE, i. 26, 73, 78.
KOLS, ii. 66, 68; App. III. 76.
KOYAHKAI River, i. 48, ii. 177; App. I. 2, 3.
KSHATTRIYAS, i. 262; App. I. 8, 9, II. 39, 40, IV. 124.

LAND, increase in value of, i. 52; destitute of value, ii. 60, 261–263.
LANDHOLDERS (intermediate between Government and the cultivator), i. 36, 40, 53, 54, 61 (see also *Husbandmen*, *Rights in the Soil*, *Village Communities*); under Marhattás, ii. 32, 33; desert their lands, 52; disappear from Orissa, 60; reappear, 61; landholders unknown in Kandh country, 77, 204, 205, 208, 209, 212, 213; total number of landholders in tributary states and Orissa, 213, 214; three stages of proprietary rights, 214; proprietors merely officials under Hindus, 215–220; transition stage between Hindu and Mughul systems, 221; growth of proprietary rights under Musalmáns, 221, 222; various classes of landholders, the *Zamíndár* proper, 223; the *Talúqdár*, 224; origin and growth of proprietors' title analyzed, 225, 226; the subject of their title, 227; four incidents of their title, hereditary succession, 228; specimen of *Sanads*, 229, 230; their eight sources of income, 231–236; their responsibility for the Land-Tax, 236; procedure against them for arrears by imprisonment or sale, 237; right of private sale or transfer, 238; their aggrandizement at the cost of the village heads, 239; landholders sprung from the village heads, 249-253; Bráhman villages and tenure-holders, 254, 255; landholders disappear in 1803, and require to be 'searched out,' 256; we give them full rights, 257, 258; these rights analyzed, 259-261; present status and numbers,

262-264; system of land-rights in Khurdhá under the Hindu system, 268; and under ours, 269-271; individual proprietary rights developed at the expense of village and tenant rights, 268, 272, 273; costliness of private rights to the State, 274, 275. See App. I. 20, II. 57, IV. 145.

LAND-MAKING, process of, i. 20-24, 46, 47, 173, ii. 43.

LAND-RECLAMATION on Chilká, i. 40, 79; on Gangetic Delta, 47; on Kolair Lake, 73, 78.

LAND-REVENUE of Orissa under native and British rule, ii. 164-167; its present inadequacy explained, 167-173; App. I. 20, II. 56, 57, IV. 139, 144.

LAND-RIGHTS. See *Rights in the Soil*, *Village*, etc.

LAND-SETTLEMENT of 1836, i. 53, 60, 61, 62, 64, ii. 256-275. See App. I. 20, 24, II. 56, 57, IV. 139, 144.

LEAF-WEARING tribes, ii. 110, 116, 117.

LEASES, i. 38, 53, ii. 243, 245, 266, 271, 272.

LION LINE OF ORISSA (*Kesari Dynasty*), its rise, 474 A.D., i. 232; its national creed, cities, and capitals, 233-241 (see *Jájpur*); its public works, 274-277; its fall, 278; statistics of revenue, and extent of Orissa under Lion Line, 316.

LOVE-WORSHIP (*Vallabhárháris*), i. 108, 110-113.

LOW CASTES, i. 36, 37, 38; excluded from Jagannáth's temple, 135, 136; among the Kandhs, ii. 68, 87, 88; in a Native State, 108, 109; in Keunjhar, 114; influence of caste among them, 140; in the Kandh hamlet and Hindu village, 206, 210, 211, 241; under British rule, 246-249; in Bráhman villages, 256; App. I. 9, 10, 21, II. 40, 49, 58, III. 76, 77, IV. 124, 125.

MAHANADI RIVER, i. 47, 48, 49, 69, 70, 71, 83, 84, 173, ii. 64, 65; spoiled as a trade route by our Salt Laws, 161, 162; the Mahánadí distributaries, 177; their statistics and characteristics, 178-181; App. I. 1-4, III. 73, IV. 97-106.

MARHATTAS as landlords, i. 50, 51, 52, 61, 291; obtain Orissa, ii. 30; their period of misrule, 31-35; their transit dues, 44; their raids and molestations on our factories, 48-54; Lord Wellesley's Marhattá war, 54, 55; we wrest Orissa from them, 55-59; Marhattá land-administration of Orissa, 239, 240.

MARITIME ENTERPRISE in ancient India, i. 176, 197, 312-316.

MEDICINE, Yavana, i. 227. See *Sanitation*; also the pages devoted to the medical aspects of the respective districts at the end of App. I. II. and IV.

MILITARY CASTES, i. 36; their tenures, 36. See *Feudal Organisation*.

MISSIONARIES, their political work in Orissa, ii. 141; native Christians, famine orphanages, 142-144; the low social position of the native Christians explained, 143; App. i. 11, ii. 41, III. 77, IV. 127.

MONASTIC INSTITUTIONS and Lands (see also *Religious Grants*), their revenue in Orissa, i. 83; Vishnuvite religious houses, 109; monastic revenues, wealth, and abuses in Orissa, 116-121; monastic legislation and attempts at reform, 117, 121.

MORBHANJ STATE (see also *Peacock Family*), ii. 111, 112, 113; App. III. 87.

MUGHULS, various meanings of the word, i. 232; their struggle with the Afgháns in Orissa, ii. 14-29. See *Musalmáns*.

MUNAGUNI RIVER, i. 66, 70, 71.

MUSALMANS, their hill shrines, i. 179; appear under name of Yavanas, 224, 232; their iconoclasm at Jájpur, 265-268; their buildings at Jájpur, 266; sources of Muhammadan history of Orissa, ii. 1, 2; early invasions of Orissa, 3-6; their conquest of Orissa, 7-14; struggles between Afgháns and Mughuls in Orissa, 14-29; their decline and present low estate in Orissa, 23-25; App. I. 6, II. 37, 41, III. 77, IV. 126, 127.

NALBANA (Isle of Reeds), i. 29.

NOMADIC HUSBANDRY. See *Tillage*.

NON-ARYAN CASTES, i. 32, 36, 37, 38, 94, 95; excluded from Jagannáth's temple, 135, 136, 175, 176, 177; as the Fisher Kings of Tamluk, 310, 312 (see also *Low Castes*), ii. 68, 87, 114; App. I. 9, 10, 21, II. 40, 49, 58, III. 76, 77, IV. 124, 125.

OCCUPANCY RIGHTS among the Kandhs, ii. 205; on the plains, 243.

ODRA, or Orissa, derivation of name, i. 172.

OFFICES connected with the land revenue, the origin of proprietary rights, ii. 214, 215; era of offices, 215-222; under Marhattás, 239.

ORISSA, state of, at period of our annexation in 1803, i. 49, 55; ancient sanctity of, 82, 84; sacred divisions of, 83; boundaries and revenues of, in 12th

century, 100, 101; conquest of, 122; legislative boundaries of, in 1866, 124; Orissa under native rule, 168–331; Orissa unknown to ancient Sanscrit literature, 168, 169; its first appearance in history, 170; linguistic boundaries of, 171, 172, 174; derivation of the word, 172; early inhabitants of, 175; Buddhistic period of, 177–179, etc. (for details see *Buddhism*); Orissa delineated, 50 A.D., 197, 198; palm-leaf archives, 198–202; the pre-historical eras of Orissa, 3101 B.C. to 323 A.D., 202–206; delineated, 650 A.D., 273; statistics and revenue under Lion Line, 316; value of gold and silver in 12th century, 316; statistics under Gangetic dynasty, 1132–1532 A.D., 317–319; southern expeditions under this dynasty, 320, 321, 322; revenues under this line, 323–330; raids and invasions, 1200–1500 A.D., ii. 4, 5, 6; Afghán conquest, 7–14; Orissa the Afghán base of revolt, 14–18; under Akbar attached to the empire, 19–22; as a Mughul province, 23, 31; its revolts and rebellions, 24–29; ceded to the Marhattás, 30; under the Marhattás, 30–35; statistics of Orissa revenue under Marhattás, 30–33; the English as merchants in Orissa and the age of armed industry, 38–54; English conquest and annexation, 55–59; state of Orissa when we got it, 1803 A.D., 59–64, 127; our government of the Tributary States (*q.v.*), 64–120; our three systems of administration in Orissa, 121; our government of the Delta (Orissa proper), 121–173; our legal title to Orissa, 122; Khurdhá rising in 1818, 123–126; Orissa in 1803, 127; town population stationary, 129; love of village life, 130, 132; various features of British rule, 133–140; missionary efforts and State education, 140–149; new taxes inevitable, 151; Income Tax, 151; Salt Tax, 152–163; Stamp Tax, 164; the Land Tax and its inadequacy explained, 164–173; prices and wages, 168–173; rainfall and water supply, 174–178; characteristics of the deltaic rivers, 179; an Orissa flood, 180. For the statistical accounts of the respective districts, see App. I. II. IV.; for the Tributary States, App. III.; for the geology of Orissa, App. V.; its Flora, App. VI.; the chronicle of its native kings, App. VII.; Muhammadan annals, App. VIII.; and its vernacular literature, App. IX.

PAL DYNASTY, i. 261.

PARIKUD, i. 29–45. See *Floods.*

PARVATI, i. 82. See also *Kálí* and *Siva.*

PEACOCK FAMILY, and kings of Tamluk and Morbhanj, i. 308, 309, ii. 112, 113; App. III. 87.

PILGRIM TAX, i. 115, 116, 123, 124, 125, 160.

PILGRIMS (see *Jagannáth*, also *Pilgrim Tax*), i. 127, 132; passion for pilgrimage, 137; the pilgrim march described, 138, 139, 141, 146; pilgrim-hunters, 140; arrival of pilgrims in Purí, 142; their devotions, 143-145; their numbers, 77, 126, 138, 145; collated and scrutinized, 150; bad food, epidemics, cholera, 146–148; over-crowding in lodging-houses, 148-152; former miseries of the pilgrims, 152, 153; sufferings on the return journey, 153-156; 12,000 lives lost per annum, 156; remedial measures proposed and examined, 157-167; Chinese pilgrims to India, 141, 153, 273, 309, 310.

PIPPLI, on the Subanrekha, acquired, ii. 38; abandoned on account of the silting up of the river, 43.

POPULATION of Párikud, 38; statistics of population in Orissa, and increase under British rule, ii. 129–132, 138; pressure of population in different parts of Orissa, and its relation to the rise of rent, 211-214. For details, see App. I., II., and IV.

POLICE, statistics of, in Orissa, cost and numbers, ii. 134, 137, 138. See *Village Watchman.* See App. I. 20, 21, II. 57, 58, IV. 145.

PORTUGUESE SETTLEMENTS in Madras, Orissa, and Bengal, ii. 37, 38.

POST OFFICE, statistics and influence of, in Orissa, ii. 149.

PRICES of Fuel, i. 29; of precious metals, 12th to 19th century, 316, 317, 326-329; of rice, barley, etc., 14th to 19th century, 327, 328, 329; history of prices in Orissa, 1771-1871, ii. 168-171; App. I. 17, 18, II. 48, 49, 55, IV. 140, 141.

PRECIOUS METALS, history of their value in India, i. 316, 317, 326-329; fall in value of, 1771-1871 A.D., ii. 167-172.

PROLI, his rise to power, i. 277-279.

PROPHECIES in Khurdhá, ii. 126, 127.

PROPRIETORS. See *Land-holders.*

PUBLIC WORKS, of Buddhism, i. 178–189; of Sivaite or Lion Dynasty, 274–277 (see also *Jájpur*); of Gangetic or Vishnuvite Dynasty, 100–102, 281–300; under British rule, ii. 139, 193–199. See *Canals* and *Embankments.*

PURANAS, i. 98, 99.

PURI CITY (see *Jagannáth*), i. 83, 103, 109, 114, 142, 144, 145, 148, 160, 162, 163, 276, ii. 56; App. I. 11, 12, 13.

PURI DISTRICT (see *Floods*), Buddhist

cave dwellings, 178–181; App. I. 1–29.

RAINFALL in Orissa, ii. 175; App. I. 25, II. 64, IV. 157.
RAJAH TODAR MAL, ii. 15, 16.
RAJAH MAN SINGH, ii. 17, 18.
RAMANANDA, i. 87; his life and work, 102, 103.
RAMANUJA, i. 87, 100.
RAMBHA village, i. 27.
RENTS, i. 32, 33, 34, 50, 53–56, 59, 60, 66; rent unknown among the Kandhs, ii. 77, 205, 208, 212; origin and growth of rent in Orissa, 212–214, 232, 233; App. I. 16, II. 50, 51, IV. 135–138.
RELIGION and RELIGIOUS REFORMATIONS, i. 5, 102–115, ii. 254. See also *Baddhism*, *Chaitanya*, *Jagannáth*, *Siva*, *Vishnu*. App. I. 11, II. 41, III. 77, IV. 126, 127.
RELIGIOUS GRANTS, i. 38, 83, ii. 254. See *Monastic Institutions* and *Land*.
RENT-FREE TENURES, i. 39, ii. 231, 253, 254, 255, 260.
REVENUES and EXPENDITURE of Orissa, under Lion Line, i. 316; under Gangetic dynasty, 317–319, 323–330; of Tributary States, ii. 101; of Orissa under British rule, 132, 133; increased cost of Government, 133, 134, 150; new taxes inevitable, 151; Postal Revenue in Orissa, 149; Income Tax, 151; Salt Duty, 152–163; Stamp Revenue, 168; Land Revenue under native and British rule, 164–167; its present inadequacy explained, 167–173; remission of revenue on account of floods, 181; App. I. 19, 20, II. 56, 57, IV. 144, 145.
RICE-CROP, i. 36; App. I. 14, 15, 19, II. 44, 45, 46, 51, 55, III. 80, IV. 130–133.
RIVERS OF ORISSA, effects on Párikud, 31, 46; on Chilká Lake, 46, 47; in Purí district, 48–50, 63, ii. 175; the river system of Orissa described, 176–179; App. I. 2, 3, 4, II. 34, 35, 36, 52, 53, 54, III. 73, 74, IV. 97–109, 117–120.
RIGHTS IN THE SOIL, i. 53; Company's efforts to develope them, 53, 59, 61–63; developed under British rule, 330, ii. 163, 164, 200–276; theoretical views on land-rights, 201; village system among Kandhs, 203–206; offices connected with the Land Revenue become the origin of proprietary right, 214, 215; era of offices, 215–222; officers of fiscal divisions under Hindus, 215–219; village officers under Hindus, 220; transition from Hindus to Muhammadans, and growth of inchoate rights, 221–223; various classes of these rights—the *Zamíndárí*, 223; the *Talúqdárí*, 224; incidents and money value of these rights, 225–238; village rights, 239–256; rights of the cultivators, 241–246; of the village heads, 249–256; rights of the landholders, as defined by our proclamation of 1804 A.D., 256, 257; full proprietary rights granted and analysed, 259–261; land tenures become marketable, 262; their rapid growth, 263; village rights disintegrate, 264, 265; rights of the husbandmen protected, 266, 267; system of land rights in Khurdhá, under the Hindu Rájás, 268; and under ours, 269, 270; sale of tenant right under our system, 271; decay of corporate village rights in Khurdhá, 272, 273; they survive as corporate village amusements, 274; costliness of private rights to the State, 274, 275; an accurate system of Indian land rights to be derived only from a study of the MS. records, 276, 277; App. I. 17, 20, 24, II. 46, 47, 48, IV. 137–140, 145.

SALT-MAKING in Párikud, process, cost, and duty, i. 41, 44; solar and artificial, 41, 43, 44; Liverpool salt reckoned impure, 41, 44; heavy duty on salt a cause of the Khurdhá rising, ii. 124; average consumption of Salt in Europe and India, 152–155; rates of salt duty in India, 153; average consumption in Orissa, 156; does the salt duty press too heavily on the people? 157; could it be raised without hardship to the poor? 158, 159; our Salt Laws deprive the people of a staple article of food (cured fish), 159–161; and by internal custom-lines block up the natural trade-routes, 161–163. App. I. 4, 11, 32.
SANITATION, defective in Purí, i. 148; sanitary cordon around Cattack, 161; pilgrim camps, 163; regulation of pilgrim lodging-houses, 164; pilgrim quarantine, 165; difficulties of sanitation in India, 165, 166. For medical aspects of the respective districts, see App. I. 25–27, II. 64–69, IV. 157–160.
SAR-LAKE, i. 48; App. I. 4.
SASANS or Bráhman villages, ii. 254, 255.
SAVARS, i. 28, 175, 176; their habitat and history, ii. 67, 68; App. I. 7, II. 77.
SELF-IMMOLATION AT JAGANNATH, the historical facts about it, i. 304–308.
SILVER, value of, in 12th to 19th century in India, i. 316, 317, 326; fall in value of, 1771 to 1871, ii. 167–172.

SINGLE COMBAT, ii. 27.
SIRAI described, i. 50, 51, 52, 66, 67; App. I. 23.
SIVA, i. 82; antiquity of worship, 96; characteristics of Siva-worship, 100, 112; it becomes the national faith of Orissa, 474 A.D., 232, 233; its struggle with Buddhism, 233; Sivaite sculpture, 234, 235; Siva the dominant god, 236; spiritual aspect of Siva-worship, 237; migration of Sivaite priests into Orissa, their settlements and their influence, 238–242; establishment of Sivaism in Bengal, 261; Sivaite sculptures at Jájpur, 267–271; Siva the god of the Bráhmans, 274; decline and corruptions of Siva-worship, 274–276; its fall as the national creed, 278–280. See *Architecture*.
SLAVERY in Orissa, ii. 61, 62, 63.
SOLAR LINE (or Sun Dynasty) of Orissa, i. 286–288.
STATE EDUCATION in Denkhánal, ii. 110; statistics and influence of, in Orissa, 139–149.
SUDRAS. See *Low Castes, Hired Labourers, Non-Aryan Castes*.
SUNDARBANS OF GANGES, i. 47, of Orissa, 47; App. IV. 96, VI. 175–178.
SUN-WORSHIP, i. 203; at Jájpur, 271, 286; at Kanárak, 281; throughout Orissa, 282–284; in Bengal, 285, 286; Sun dynasty of Orissa, 286–288; Sun temple at Kanárak described, 288–298; at Purí, 290; connection of Sun-worship with Vishnuvism and Buddhism, 298, 299; Vishnuvite reformations, 302–304. See *Architecture*.

TALUQDARS, the strict meaning of the word, ii. 224. See *Landholders* and *Rights in the Soil*.
TAMLUK, a Buddhist port, i. 197; the maritime capital of Orissa, its legends and rise, 308, 309; its maritime enterprise, 310–314; its decline and ruin, 315, 316.
TAXATION, native, i. 34, 35, 36; land tax and transit dues, ii. 32, 33, 44, 45; causes of increased taxation in India, ii. 133, 134, 150, 151; local taxes and cesses under Mughuls, 233, 234; transit dues, 235.
TENURES. See *Rights in the So.l, Landholders, Husbandmen*, etc.
TILLAGE, nomadic, ii. 102, 103, 110, 111, 205, 207, 208; increase of tillage under British rule, 128. See *Husbandmen*. App. I. 14–19, 24, II. 44–56, III. 80, IV. 115, 130–143.
TRANSIT DUTIES ON GOODS under native rule, ii. 44, 235.
TRIBUTARY STATES, oppressed by Marhattás, ii. 49; their geography and natural features, 64, 65; their rivers and water supply, 65, 66; their population, Aryan and Non-Aryan, 66–120 (see also *Kandhs, Savars, Kols*); British system of government in Tributary States, 100, 101; their trade and currency, 102; statistics of, 100–104; Denkhánal State, 104–111; Morbhanj, 111–113; Keunjhar, 112–119; minor hill chiefs, 119, 120; ravages by wild beasts, 128; App. III. 71–93.

UDAYAGIRI, i. 181.
UTKALA, Sanskrit name for Orissa, derivations of, i. 81, 172.

VILLAGE ACCOUNTANT, his duties and emoluments, i. 60, 61, ii. 220, 249, 269.
VILLAGE COMMUNITIES, i. 32, 34, 37, 50, 52, 54–59, 60; the Uriyas' love of village life, ii. 102, 103, 129–131; the Kandh and Hindu Village compared, 203–208; their differences examined, 208–211; village, the rural unit of the Hindu system, 215, 216, 219; village organisation and administration, 220, 221; rights of village heads sacrificed under Mughuls to the *quasi*-landholders, 239; village heads, etc., under the Marhattás, 240; The Village Guild, 241; the component parts of the village, 241; resident husbandmen, 242–245; non-resident husbandmen, 245, 246; landless castes, shopkeepers, and merchants, 246; artisans, 247; day-labourers, 248; village officers, 249; village heads, 249–254; Bráhman villages, 255, 256; we recognise village heads as landholders, 260; village rights disintegrate under our system, 264; harsh aspects of the change, 265; Village system and officers in Khurdhá under the Hindu system, 268, and under ours, 269, 270; village usages sacrificed to individual rights, 272, 273; App. I. 22, II. 58, 59, IV. 147.
VILLAGE GODS, i. 95, 143, i. 136.
VILLAGE HEADMAN, his duties and emoluments, i. 60; village heads among the Kandhs and Hindus, ii. 74, 80, 204, 205, 209, 220, 239, 240, 249; hereditary heads, 249; heads by purchase, 250; by election, 251, 252; their profits, 253; in Khurdhá, 270.
VILLAGE WATCHMAN, his duties and emoluments, i. 61; number of, in Orissa, ii. 137, 138, 218; organized as a peasant militia, 216, 218.
VISHNU, i. 82, 84; Vishnuvite reformations, 87, 88; primeval search for him, 89, 90, 96; introduction and strongly

Aryan type of Vishnu-worship, 97; Vishnu-Purána, 1045 A.D., 98, 99; Vishnuvite reformations, 99, 100, 102–107; popularity of Vishnu with the peasantry, 109; Vishnuvite quietism, 107; Vishnuvite reformations continued, 108–112; indecencies of Vishnu-worship, 110–112, 131, 135; explained, 113; mythical contest of Vishnu with Kshattriyas, 262, 263; Vishnuvite sculptures at Jájpur, 267–271; Vishnu the god of the common people, 274; his worship becomes the royal faith in Orissa, 1132 A.D., 278–280; Vishnuvism in the form of Sun-worship, 281–287; Vishnuvism, Sun-worship, and Buddhism, 298–300; Jagannáth left supreme, 300; philosophy of the Vishnuvite Avatárs, 300.

WAGES, rise in, 1771 to 1871, ii. 168–171, 248; App. I. 17, 18, II. 48, 49, IV. 140.

WASTE LAND, i. 35, 38, ii. 60, 61, 212–214, 231, 232, 235, 242, 250, 251, 252, 253, 270; App. I. 17, 24, II. 49, 50, IV. 131, 142.

WATCHMAN. See *Village Watchman.*

WATER SUPPLY, sources of, in Orissa, i. 47, 64; cost of controlling water supply in Purí district, 63–68; schemes for doing so, 69–76; the general water supply of Orissa, ii. 174–180; costliness to Government of its present uncontrolled state, 180–188; its disastrous effects on the people, 188, 189; schemes for controlling the water supply, 189–198 (see also *Daltala Cutting, Floods, Rivers, Droughts, Párikud*); App. I. 2, 3, 4, II. 34, 35, 36, III. 72, 73, 74, IV. 97–109, 117–120.

WEAVERS and WEAVING VILLAGES, ii. 41, 45, 247.

WILD BEASTS, ii. 127, 128; App. I. 5, II. 36, III. 75, 76, IV. 121.

WOMEN, status of, in Vishnuvite sects, i. 110; high status among the Kandhs, ii. 83.

YAMA, i. 82.

YAVANAS, legend of their arrival in Orissa, i. 25, 85; identified with Ionian or Asiatic Greeks, 209–211; the Ionians (Yavanas) in Northern India, 212–214, Yavanas and Buddhism in Orissa, 215, 216; Yavana or Indo-Greek maritime enterprise, 216, 217; Yavanas in Central India, 218; in Southern India, 219–222; disappearance of the Yavanas, 223; the Musalmáns as Yavanas, 224; Yavana astronomy, 225, 226; Yavana medicine, 227; Yavana religion, *i.e.* Buddhism, 227–229, 261; Yavana sculpture, 230–232; expulsion of Yavanas from Orissa, 232.

ZAMINDARS, strict meaning of the word, ii. 223. See *Landholders*, and *Rights in the Soil.*

OMISSION.

I find that my obligations to the Civil Surgeons of Cattack, Purí, and Balasor have not been adequately acknowledged. I am indebted to these gentlemen for the materials for the sections headed 'Medical Aspects' in Appendices I., II., and IV., and for the botanical identifications of the Purí vegetable products in Appendix VI. In the latter case I have trusted entirely to the officer in medical charge of the District.